Titel der Diplomarbeit
“Of ’s and ofs: German and Finnish speakers’ choice of possessive construction in English”

Verfasserin
Iris Vukovics, Bakk.phil. BA

angestrebter akademischer Grad
Magistra der Philosophie (Mag.phil.)

Wien, 2013

Studienkennzahl lt. Studienblatt: A 343
Studienrichtung lt. Studienblatt: Anglistik und Amerikanistik
Betreuerin: Univ.-Prof. Dr. M. Evelien Keizer
to life, the universe,
and everything
Acknowledgements

For the past few months, I have been possessed by possessives.

Between recurring nightmares about missed deadlines, countless struggles to find the right words or a suitable example, and feeling giddy with excitement over having finished another section, there has been little time for anything else but this thesis. Working on it proved to be one of the most challenging (and occasionally even nerve-racking) times of my life, and yet it has also been a fun and immensely rewarding experience.

I would like to thank everyone who has been there for me during this roller coaster of a journey. Without you, many of the downs that I went through would have been much more devastating, and none of the ups as enjoyable.

Of all the people who deserve special mention here, the first I would like to express my sincere gratitude to is my supervisor, Evelien Keizer. Her keen eye and critical mind have helped to make this thesis better than it otherwise would have been, just as her continued support, understanding and encouragement have helped me to remain positive while bringing it to completion.

I also owe a lot of gratitude to the VOICE team for their help in compiling the data for my research project. Special thanks go to Barbara Seidlhofer for employing her networking skills on my behalf (as well as for some much needed late-night brain food), to Michael for showing me how to convince the VOICE corpus of spitting out the kinds of construction I was interested in, and to Ruth and Nora for giving me the right advice at just the right moment. I would also like to send a big thank you to Ray Carey in Helsinki for giving me free access to parts of the ELFA corpus. Overall, I was amazed by all the support I got from different people within the academic community. I will do my best to give back some of the help I have received.

For their company, assistance and many a shared pot of tea I would like to thank my fellow travellers Julia, Miri and Udo. Your fingers tapping on your keyboards was the perfect soundtrack for the work on my own thesis. If it were not for you, I would not have managed to motivate myself to continue writing day after day. To Udo and Miri I am especially grateful for all the help they gave me after they had finished their theses, be it in the form of library trips, scans of
important notes that I had left at the office, or bowls of unforgettable chocolate pudding. The perhaps biggest share of thanks goes to Julia, who worked alongside me until the very end. Thank you so much for always taking the time to listen to my concerns and respond to my questions, and for being such a wonderful friend to me throughout the time of our studies.

Finally, I would like to thank my family for everything they have done for me. The financial support I received from both my parents and my grandparents has been invaluable, but more than that, I would like to thank them for always standing behind me and believing in me. The same holds true for my siblings Lara and David. It is impossible to put into words how grateful I am to all of you.

The very last words of thanks go to Marc. Thank you for sharing in all my excitement, frustration, desperation and joy. Knowing that I could come home to you made all the difference.
# Table of contents

## Tables and figures

## List of abbreviations and typographical conventions

### 1. Introduction

### 2. Theoretical framework: Concepts, models, theories

#### 2.1. Cognitive Linguistics

##### 2.1.1. Langacker’s Cognitive Grammar

##### 2.1.2. Constructions

##### 2.1.3. Construal

##### 2.1.4. Reference points

#### 2.2. Language transfer

##### 2.2.1. Key factors affecting language transfer

##### 2.2.2. Reconceptualising transfer: CLI in Cognitive Linguistics

#### 2.3. Possession

#### 2.4. A word on ELF

### 3. Defining the object of investigation: Possessives

#### 3.1. ’s versus of: Possessive constructions in English

##### 3.1.1. Prenominal possessive

##### 3.1.2. Postnominal possessive

##### 3.1.3. Accounting for the distribution of ’s and of

#### 3.2. Genetiivin ylivoima: Possessive constructions in Finnish

#### 3.3. Dem Genitiv sein Tod: Possessive constructions in German

### 4. Data and methodology

#### 4.1. Methods of analysis

##### 4.1.1. Quantitative analysis

##### 4.1.2. Qualitative analysis
4.2. Compiling the data .................................................................................. 78
   4.2.1. Choosing the corpora ................................................................. 78
   4.2.2. Sorting and filtering the data....................................................... 80
   4.2.3. Selecting a relevant subsample .................................................. 85
4.3. Determining the parameters .................................................................. 86
   4.3.1. Animacy ......................................................................................... 87
   4.3.2. Topicality ....................................................................................... 89
       4.3.2.1. Givenness .............................................................................. 89
       4.3.2.2. Activatedness ........................................................................ 90
   4.3.3. Complexity/end weight ............................................................... 92
   4.3.4. Number of possessor and presence of a final sibilant .................. 93
   4.3.5. Activatedness of the possessive relation ...................................... 94
   4.3.6. Semantic roles .............................................................................. 95
   4.3.7. Reference-point versus specifying function of the possessor ......... 96
4.4. Problems and limitations ........................................................................ 97

5. Presentation of results ................................................................................ 103
   5.1. Quantitative analysis: Comparison of frequencies .............................. 103
   5.2. Qualitative analysis I: Identification of salient factors ......................... 108
       5.2.1. German speakers’ use of prenominal possessives ....................... 109
       5.2.2. Finnish speakers’ use of postnominal possessives ....................... 118
   5.3. Qualitative analysis II: Comparison to native use ............................... 124
       5.3.1. Animacy ....................................................................................... 126
       5.3.2. Topicality ..................................................................................... 127
           5.3.2.1. Givenness ........................................................................... 128
           5.3.2.2. Activatedness ...................................................................... 128
       5.3.3. Complexity/end weight .............................................................. 129
       5.3.4. Number of possessor and presence of a final sibilant .................. 131
       5.3.5. Activatedness of the possessive relation ...................................... 133
       5.3.6. Semantic roles ............................................................................ 133
       5.3.7. Reference-point versus specifying function of the possessor ......... 135
6. Discussion: And what about the mind? .................................................. 138

6.1. The role of L1 cognitive habits in L2 performance ....................... 138

6.2. What learners’ choices reveal about the English possessive .......... 143

7. Conclusion ................................................................................................ 147

8. References.................................................................................................. 149

Appendix ........................................................................................................ 156

   English abstract ........................................................................................ 156
   German abstract ....................................................................................... 158
   Curriculum vitae ...................................................................................... 160
Tables and figures

**Table 1**: Prototypical properties of possessive notions according to Heine (1997: 39) .............................................................................................................. 29

**Table 2**: Overview of corpus data included in this study .......................... 80

**Table 3**: Extended list of semantic relations encoded by possessive constructions .............................................................................................................. 95

**Table 4**: Overview of total number and frequency of possessive constructions ............................................................................................................... 103

**Figure 1**: The internal structure of a symbolic unit (adapted from Langacker 1987: 77) ........................................................................................................... 9

**Figure 2**: The basic word classes (based on Langacker 2006: 52, Taylor 2002: 207-211) ........................................................................................................ 11

**Figure 3**: A prototypical construction (Langacker 1987: 326) .................. 14

**Figure 4**: The reference-point model (Langacker 1999: 174) ................. 18

**Figure 5**: Heine’s “prototype characterization of possessive notions” (1997: 40) ................................................................................................................. 29

**Figure 6**: Compositional properties of prenominal possessives (based on Langacker 1995: 62) .................................................................................. 36

**Figure 7**: Correspondence links between relational noun and of-phrase (cf. Langacker 1999: 81) ...................................................................................... 41

**Figure 8**: Prototypical and schematic meaning of of (Langacker 1999: 77) ..... 43

**Figure 9**: Comparison of pre- and postnominal possessive (extension of Langacker 1995: 68) ................................................................................. 46

**Figure 10**: Preference structure for English possessives (Rosenbach 2002: 267) .............................................................................................................. 50

**Figure 11**: Importance of factors for descriptive accuracy (Hinrichs & Szmrecsanyi 2007: 463) .................................................................................. 52

**Figure 12**: Total frequency of possessive constructions .......................... 104

**Figure 13**: Overall distribution of prenominal and postnominal possessive... 105

**Figure 14**: Frequency of postnominal possessive if prenominal possessive is kept stable ................................................................. 106
List of abbreviations and typographical conventions

CONCEPT ....... semantic structure, concept(ualisation)
[ ] ............. unit
( ) ............. non-unit
A ............... activated
A I ............. abstract inanimate
B P ............. (human) body part
CG ............. Cognitive Grammar
C I ............. concrete inanimate
CLI ............ cross-linguistic influence
CxG ........... Construction Grammar
D ............... dominion
ELF ............ English as a lingua franca
ELFA ........... Corpus of English as a Lingua Franca in Academic Settings
G1 ............. given directly
G2 ............. given indirectly (i.e. via a (near-)synonym)
H ............... Hearer
H A ............. human animate
H I ............. human inanimate
H O ............. human organisation
I ............... inactivated
ICE-GB ....... The British Component of the International Corpus of English
ICLE .......... International Corpus of Learner English
L1 ............. first language
L2 ............. second or foreign language
lm ............. landmark
LN ............. other foreign language affecting L2
N ............... not given
N A ..............non-human animate
POSS ..........possessive morpheme
R ..................reference point
S ..................Speaker
S1, S2, S3 ...semi-activated
SLA ..............second (and foreign) language acquisition
T .................target
tr ..................trajector
VOICE ..........Vienna-Oxford International Corpus of English
1. Introduction

Language transfer, Cognitive Grammar, German and Finnish learners of English and possessive constructions may seem like a rather curious mix of ingredients for a diploma thesis, and yet they have been blended together, stirred thoroughly and then simmered over medium heat for several months to produce the present paper. The final outcome is an exploration of the use of English possessive constructions by native speakers of German and Finnish within a cognitive linguistic framework.

The aim behind creating this particular concoction is twofold: Firstly, an investigation of learner language from a cognitive perspective may show how great a role established mental habits play in the acquisition of a second language. This, in turn, has potentially far-reaching implications for language teaching. As Littlemore & Juchem-Grundmann (2010: 2) point out, learners might need to be made aware of L1 cognitive processes and their influence on L2 performance in order to facilitate second language learning. Secondly, by identifying and analysing the contexts in which language transfer does not seem to be at work, one might gain new insights into the parameters which determine the choice of possessive construction in English. While it is perhaps utopian to hope that a study of non-native speakers’ use of English possessives may finally settle the long disputed question about which factors are responsible for the distribution of prenominal ‘s and postnominal of, it may still provide an interesting new perspective, and help to strengthen and/or challenge existing accounts of this phenomenon.

Finnish and German speakers of English are two groups that are particularly well-suited for such an investigation, because they differ considerably in the way possessive relations are coded in their respective native languages. This holds true both when Finnish and German are compared to each other, and in comparison to native speakers of English. While German and English belong to the Germanic branch of the Indo-European languages, Finnish is a Uralic language, and therefore part of a different language family entirely. As far as possessive constructions are concerned, Finnish and German seem to be
situated at (or at least close to) the two different ends on a continuum from purely synthetic to more analytic means of expressing possession. English, on the other hand, offers both a largely synthetic prenominal and an analytic postnominal possessive construction. Therefore, if L1 transfer really is an influential factor in the acquisition of a second language, one can expect German and Finnish learners to have opposite preferences in their choice of English possessives. Moreover, if this hypothesis is found to be true and language transfer does indeed turn out to have a strong impact on L2 performance, then the cases in which German and Finnish speakers choose the construction that does not correspond to the one(s) available in their first language might reveal something about the factors behind the distribution of 's and of. To be more specific, they might indicate which factors are so pervasive in the choice for the one or other construction that even non-native speakers of English recognise them and use the pre- or postnominal possessive accordingly.

This paper can roughly be divided into three parts. The first part, which spans two chapters, provides the theoretical basis for the rest of the paper. Chapter 2 outlines the conceptual framework that guides the research and discussion in the following chapters. First, the linguistic theory that informs this paper is introduced: After a short summary of the central claims and ideas behind Cognitive Linguistics in general, the focus will be placed on Cognitive Grammar, as developed and elaborated upon by Langacker (1987, 1991, 1999, 2008). Special attention will be devoted to concepts that are of particular relevance for the analysis of possessives, such as those of constructions and construal, as well as reference point function. Then, I will present two notions that are more or less independent of cognitive linguistics, but nonetheless of great importance to this paper, namely language transfer and possession. I will discuss current views on both of these issues and, in the case of possession, also address the question of how it can be defined. Finally, Chapter 2 ends with a short section on ELF, in which I will briefly explain its main concerns and then position this paper in relation to them.
The concluding chapter of the theoretical part, Chapter 3, is concerned with the linguistic phenomenon under investigation, i.e. possessive constructions. Unlike the concepts discussed in Chapter 2, possessives are language-specific, and I will therefore examine their status in the three languages in question individually. Since this paper deals with how learners use English possessive constructions, the majority of the chapter will be devoted to the situation in English: I will first characterise prenominal 's and postnominal of separately, and then go on to review different accounts of the reasons for their distribution. To be able to determine whether language transfer plays a role in learners’ choice of possessive construction, however, it is also vital to understand their language background. Thus, Chapter 3 contains a section each on how possessive relations can be expressed in Finnish and German, respectively.

Chapters 4 and 5 constitute the empirical part of this paper. Chapter 4 provides an overview of the research design, including a description of the data selection process as well as definitions of the different parameters that were applied in the analysis. Moreover, there is a section which addresses some potential problems and points to the inherent limitations of the project.

Chapter 5 then presents the findings of the empirical study outlined in Chapter 4. This presentation of results is split into three parts, a quantitative and two qualitative ones. The former is concerned with the frequency of the two possessive constructions, while the latter two take a closer look at the factors involved in the choice between prenominal and postnominal possessive. First, an attempt is made to identify salient factors in the choice for a construction by looking at areas where language transfer is unlikely to take effect; then, all research parameters are tested with regard to their relevance for the distribution of possessives found in the language of all three speaker groups under investigation. This way, it is checked whether there is a correlation between the patterns found in learner language and those in native English.

The third and final part of this paper is made up of the discussion of findings in Chapter 6. Its main function is to bridge the gap between the theoretical considerations presented in Chapters 2 and 3 and their practical application in Chapters 4 and 5. It seeks to link back the results of the empirical study to the
aims presented at the beginning of this introduction and to review the findings in the light of Cognitive Linguistics. Thus, it will attempt to answer two questions, namely what German and Finnish speakers’ choice of possessive construction in English can reveal about the influence of L1 cognitive habits on L2 performance, and what it might tell us about the factors underlying the distribution of ‘s and of.

Finally, the paper is rounded off with a short chapter consisting of a summary and some concluding remarks.
2. Theoretical framework: Concepts, models, theories

2.1. Cognitive Linguistics

When speaking about Cognitive Linguistics, it makes sense to distinguish between uncapitalised cognitive linguistics and Cognitive Linguistics (with a capital C and L) in the narrow sense (cf. Taylor 2002: 6, Geeraerts 2006a: 3, Geeraerts & Cuyckens 2007: 4, Panther & Thornburg 2009: 2). The broad term cognitive linguistics can be applied to any linguistic theory that views language as a mental phenomenon. It is therefore quite compatible with the Generative tradition, which sees the ability to learn a language as hardwired into the human brain, and postulates the existence of a separate mental faculty responsible for language. Capitalised Cognitive Linguistics, on the other hand, is a recent trend within linguistics which emerged in the 70s and has been gaining ground ever since. It differs from the Generative paradigm (as well as other approaches to language) in that it does not regard language as autonomous, but rather as an “integral part of cognition” (Taylor 2002: 8). In other words, Cognitive Linguistics understands language in the light of other cognitive abilities, such as perception, conceptualisation, categorisation or attention.

Even Cognitive Linguistics in its more restricted sense does not constitute one unified framework, however. As Geeraerts (2006a: 2) puts it, “Cognitive Linguistics […] takes the form of an archipelago rather than an island”: It is a cover term for several ultimately independent approaches, which nevertheless hold an essentially common view of language and share certain basic characteristics and research interests. Cognitive Linguistics thus refers to such diverse theories as George Lakoff’s theory on conceptual metaphor, Charles J. Fillmore’s Frame Semantics or William Croft’s Radical Construction Grammar.

One important aspect that all Cognitive Linguistic approaches have in common is their focus on meaning. Meaning is seen as the basic function of language, and as such it is also the primary object of linguistic research. Moreover, Cognitive Linguistic theories do not only agree on the centrality of meaning, but also on some fundamental properties of linguistic meaning. In the words of
Geeraerts, linguistic meaning is “perspectival”, “dynamic and flexible”, “encyclopedic and non-autonomous” and “based on usage and experience” (ibid.: 4-6). The perspectival nature of meaning is reflected in the fact that there is not only one way of coding a particular situation, but that we can refer to it in a variety of ways, depending on what point of view we adopt. Thus, language does not simply mirror the world, but always encodes a certain perspective: It reflects the way our mind organises and shapes the world. This aspect of meaning is closely linked to the notion of construal, which will be explored in more detail in section 2.1.3. below. The view of meaning as dynamic and flexible goes hand in hand with our modern conception of language: Just as language as a whole is not static but changes over time, meaning is not fixed either, but is adapted constantly to match our experiences. The assumption that language (and consequently also meaning) is non-autonomous has already been discussed above. Characterising meaning as encyclopaedic means recognising that the narrow referential meaning (as it is typically found in dictionary definitions) does not suffice to adequately describe linguistic meaning; rather, linguistic meaning comprises all kinds of knowledge about the world, and can also differ from culture to culture or even between individuals. Finally, meaning is seen as usage-based in the sense that it is grounded in experience. For example, even our knowledge of abstract linguistic structures (e.g. such classes as words or morphemes) is based on concrete language use. Cognitive Linguistics thus takes a bottom-up view of meaning: All we can perceive are concrete utterances, and it is only by abstracting from these that we build up categories.

Their view on categorisation is actually another important factor which connects most of the different approaches grouped under the umbrella of Cognitive Linguistics. Following prototype theory as defined by Eleanor Rosch, categories are seen as structured around prototypes, i.e. the best examples of a category or “clearest cases of category membership” (Rosch 2004: 98). Moreover, according to prototype theory, category membership is not a question of either-or in the sense of necessary and sufficient features, but is a graded notion. Therefore, different items can exhibit varying degrees of membership, and categories typically have fuzzy, rather than clear-cut, boundaries.
2.1.1. Langacker’s Cognitive Grammar

One of the most influential Cognitive Linguistic theories, and arguably the most elaborate and comprehensive framework within Cognitive Linguistics, is Cognitive Grammar (CG), which was developed by Ronald W. Langacker. CG is also the framework adopted in this paper, precisely because it offers the most far-reaching and complete description of the English language within the Cognitive paradigm, as well as the necessary tools to account for a wide range of linguistic phenomena in other languages. What is more, CG proves particularly fruitful for the analysis of so-called syntactic alternations, such as dative alternation, active-passive alternation or possessive alternation. While these construction pairs have been analysed as (near-)synonymous surface realisations deriving from the same deep structure in the Generative tradition, in CG they are recognised as semantically different. Accordingly, CG has developed concepts and means of analysis which make it possible to explain the semantic differences between syntactic alternants. Therefore, CG should be ideally suited to account for the distribution of prenominal ‘s and postnominal of.

Syntactic alternations are not the only subject-matter on which CG takes a radically different stance than traditional Generative approaches, however. In fact, CG deliberately turns against Generative Grammar in many respects. As Langacker states in the preface to the first volume of his seminal work *Foundations of Cognitive Grammar* (in two volumes; 1987, 1991), CG grew out of his “[profound] dissatisfaction with the dominant trends in current theory” (i.e. the Generative paradigm), which reached as far as “to the deepest stratum of organizing principles: notions about what language is like and what linguistic theory should be concerned with” (1987: v). While it would go too far to give an in-depth description of the claims of CG and how they refute many of the fundamental assumptions made by Generative Grammar, this chapter will introduce some of the basic tenets of CG, and thereby also highlight some issues in which CG and Generativist linguistics are at variance.

First of all, as a Cognitive Linguistic framework, CG obviously shares all of the characteristics outlined above: It posits that language is intrinsically tied to other cognitive abilities and that meaning is central and should therefore lie at the
heart of linguistic research. Furthermore, CG does not assume clear-cut categories, but accepts gradience, overlap and blurry boundaries. It is a usage-based approach, which sees our linguistic capacities as grounded in experience, and concrete utterances (or, in CG terminology, usage events) as the basis of all abstract structures.

According to Langacker, grammar is “a structured inventory of conventional linguistic units” (1987: 57). This definition of grammar might seem straightforward at first, but it actually raises a number of important theoretical questions: What is grammar? What is a linguistic unit? Why conventional units, and what is meant by structured? By answering these simple questions, one can already explain some of the basic assumptions of CG.

Grammar is understood by Langacker in a very broad sense, namely as “the psychological representation of a linguistic system” (ibid.). Thus, in CG terms, grammar corresponds to what one might conventionally simply call language (e.g. when asking whether someone speaks, understands or knows a language), and is roughly equivalent to Chomskyan competence, i.e. “the speaker-hearer’s knowledge of his language” (Chomsky 1965: 4), albeit with the limitation that CG does not accept a sharp distinction between competence and performance.

A linguistic unit can be either a phonological, a semantic or a symbolic unit, with the latter combining the other two: In Langacker’s words, a symbolic unit consists of a “semantic” and a “phonological pole”, as well as the “association between them” (1987: 76); Evans & Green (2006: 6) speak of a “form-meaning pairing” or (misinterpreting Langacker, see section 2.1.2.) a “symbolic assembly” (ibid.: 476). Fig. 1 is a visual representation of this conception of linguistic structure using the example of fish. The complex symbolic unit \([FISH]/[\text{fish}]\) is built up of a semantic unit [FISH] and a phonological unit [\text{fish}], which are connected by means symbolisation (sym), i.e. the phonological unit stands for the semantic one. Taylor (2002: 20) refers to this conception of language as a means of associating form and meaning as the “symbolic thesis”.

The reason Langacker refers to *conventional* units is best explained by first defining the meaning of unit. In CG, the term unit is reserved for any structure that has become entrenched, and can therefore be retrieved without special mental effort. In principle, any structure can achieve unit status through repeated use; furthermore, not all units are equal in terms of their unit status, as more frequent structures will be more deeply entrenched than others. For a unit to be conventional, it is not enough if it is entrenched in the mind of just one speaker, however. Conventionality involves a further step: Units are conventional if they are shared by a large group of speakers (Langacker 1987: 62). It is this common inventory of linguistic structures that CG seeks to describe.

The final question which arises from Langacker’s definition of grammar pertains to the meaning of the word structured. In the most basic sense, grammar is structured in that “some units function as components of others” (ibid.: 73). This is already evident from the internal complexity of symbolic units. Apart from the relation of symbolisation that forms symbolic units, CG recognises two other kinds of relations between units: the part-whole relationship between a composite structure and its components, and the taxonomic relationship between an instance and a schema, i.e. a concrete and a more abstract structure (ibid.: 74-75). The claim that a language can be exhaustively described by means of linguistic units and the relations that hold between them is made explicit in the so-called content requirement:
The only units permitted in the grammar of a language are (i) semantic, phonological, and symbolic structures that occur overtly in linguistic expressions; (ii) structures that are schematic for those in (i); and (iii) categorizing relationships involving the structures in (i) and (ii). (Langacker 2006: 47)

From the restrictiveness of the content requirement as well as the definition of unit follows another key tenet of CG, namely that there is no distinction between lexicon and grammar (i.e. morphology and syntax). CG completely does away with the traditional division of language into words and syntactic rules that determine how they can be combined into larger structures. According to CG, a larger, composite structure can have unit status just as well as a lexical item. The only difference between lexicon and grammar is that elements that have traditionally been defined as grammatical are usually more schematic than lexical ones, but there are no grounds for drawing a sharp boundary between them (Langacker 1999: 18).

Another important aspect on which CG disagrees with the established linguistic norm is the definition of word classes. While it is generally accepted in theoretical approaches to language that word classes can only be properly distinguished on formal grounds, CG argues that categories like nouns, verbs, adjectives, adverbs and prepositions are semantically definable, as long as these definitions are kept sufficiently schematic. Thus, nouns are things, i.e. “a region in some domain” (Langacker 1987: 189), while the other main word classes are relations, i.e. they specify interconnections between things. The relational word classes are further subdivided into stative, a-temporal relations (i.e. adjectives, adverbs and prepositions) and temporal relations, or processes (i.e. verbs). The CG approach differs from the traditional account in more than just its basis for the definition of word classes, however. As a result of its broad semantic definitions, CG does not arrive at exactly the same categories. To give just one key example, the CG term noun also includes pronouns and even multiword expressions up to and including full noun phrases (cf. ibid.: 242).

To get a better idea of what these definitions mean, it is necessary to look into how meaning in general is understood in CG. There are three concepts that play a central role in the description of semantic structures: domain, profile and
base. A domain is a “context for the characterization of a semantic unit” (ibid.: 147); to give a simple example, two-dimensional space provides the domain for [SQUARE], while the human body is the domain for [FACE]. To characterise a semantic unit, it is often necessary to invoke several such domains, i.e. a whole matrix of domains (ibid.). The notion of base is closely related to that of domain, but is more specific: While the domain refers to the general conceptual background of a semantic unit, the base is a more concrete semantic structure that is necessary to understand the meaning of this unit, even though it itself is not in focus. The focus lies on the unit’s profile, “a specific entity identified and characterized by its position within a larger configuration” (ibid.: 183). A roof, for example, can only be conceived of in relation to some kind of building. [ROOF] would thus be profiled against the base of a building, while relevant domains could be human architecture, or even something as abstract as three-dimensional space.

Figure 2: The basic word classes (based on Langacker 2006: 52, Taylor 2002: 207-211)

To come back to the meaning of the traditional word classes, we can now define them by means of the profile-base relation. Figure 2 illustrates the basic semantic configuration of nouns (a), adjectives, adverbs and prepositions (b) and verbs (c). The square boxes stand for the (schematic) domain matrix against which the units are characterised, while the bold lines indicate which area of the base is in profile\(^1\). In the case of nouns, a certain region is profiled, while adjectives, adverbs and prepositions profile a relationship between entities. Verbs, finally, share the same base as the a-temporal relations, but

\[^1\text{In the schematic representation of a noun given here, it looks as if the profile corresponds to the base. This is not to be taken to mean that the profile-base distinction is irrelevant for nouns, but is simply the conventional way to visually represent them in CG.}\]
profile the continuation of this relation through time. In terms of concrete linguistic expressions, (a), (b) and (c) could be taken as representations of the book, on (the table) and the book is on the table, respectively.

2.1.2. Constructions

As was already discussed above, CG argues that it is arbitrary to draw a sharp dividing line between lexicon and grammar; instead, they are seen as a continuum of “assemblies of symbolic structures” (Langacker 2009b: 2). This assumption has important implications: Because every symbolic structure contains a semantic pole, it follows that every linguistic construct is meaningful, even those that are traditionally assigned to grammar. In Cognitive Linguistics, the term usually applied to linguistic constructs is construction, and there is a strong trend to regard them as the most essential components of language.

In addition to theoretical lines of argument, such as the one employed by Langacker, there is also more concrete evidence for the importance of assuming constructions. For instance, it has been shown that the properties of the parts of a construction cannot always explain the meaning of the whole. The most classic such example comes perhaps from Goldberg (1995: 9):

(1) He sneezed the napkin off the table.

The use of an intransitive verb such as sneeze in this sentence can only be made sense of if we accept that constructions have a meaning of their own: The obvious interpretation that the sneezing was so forceful that it caused the napkin to move off the table cannot be arrived at on the basis of the meaning of the verb alone; therefore, the implication of caused motion must lie in the construction itself. Furthermore, there is strong evidence that constructions play a vital role in first language acquisition, i.e. that children acquire their first language by building up an inventory of constructions (Tomasello 2000).

While there is general agreement on the importance of the notion of constructions, Cognitive Linguistic approaches vary in terms of how they define
them. For Langacker and Taylor, constructions are symbolically complex (Langacker 1987: 82; Taylor 2002: 561), whereas Goldberg, for example, initially defined constructions on the basis of unpredictability:

C is a construction iff $\text{def} C$ is a form-meaning pair $<F_i, S_i>$ such that some aspect of $F_i$ or some aspect of $S_i$ is not strictly predictable from C's component parts or from other previously established constructions. (1995: 4; my emphasis)

In her later works, this definition was widened to include predictable patterns as well, provided they are frequent enough to have become entrenched (2006: 5).

Cognitive Linguistic frameworks that analyse language as a network of constructions are subsumed under the name Construction Grammar (CxG). Importantly, just as Cognitive Linguistics does not constitute a unified theory, neither does CxG. As has just been shown, different approaches differ in how they define constructions. Moreover, there is not even consensus on what counts as CxG: While Evans & Green (2006: 660-661) and Croft (2007: 489-495) view CG as a form of CxG, other definitions limit CxG to such theories that assume “constructions all the way down” (Goldberg 2006: 18). In this light, CG does not belong to CxG, since Langacker sees constructions as symbolically complex, and therefore recognises smaller structures as well.

In Langacker’s terminology, constructions correspond to “symbolic assemblies” (2008: 161). This term further emphasises their one defining characteristic according to CG, i.e. their composite nature. Overall, CG employs a very broad definition of constructions: They vary both in terms of their unit status and with regard to schematicity. Thus, a construction can be either a specific expression or a schematic pattern (or “constructional schema”, Langacker 2009b: 5). The latter roughly correspond to the traditional concept of syntactic rules, in the sense that they are the structures guiding grammatical composition (ibid. 2008: 167).

While composition is an important organisational principle in CG, it is crucial not to equate it with compositionality. In other words, CG accepts (and even heavily relies on) composite structures, but does not regard them as fully analysable
into their component parts. As Langacker puts it, “component structures serve as stepping stones for reaching the composite structure, rather than as building blocks for constructing it” (2009a: 258). Instead of consisting of nothing but the sum total of their parts, constructions also include the way their components are combined as well as the meaning of the composite structure as a whole (ibid. 1987: 277). This does not mean that constructions are necessarily unpredictable, however. The meaning of the composite structure can, but does not have to be, deducible from the meaning of its component parts.

Whether two or more structures can combine to form a larger construction depends on whether there are any correspondences between them (ibid.: 94). Integration is only possible if the two structures share a common substructure. This is illustrated in Figure 3, which shows a prototypical construction composed of a relation and a thing. The relation contains a schematic substructure (the shaded area) which corresponds to the thing (as indicated by the dotted line connecting them), although it is of course much more abstract. To come back to the concrete examples used in connection with Figure 2, the preposition on and the noun table can be integrated to form on the table because on has as one of its substructures a schematic thing, which matches the substructure of table.

Figure 3 is also useful for explaining two important concepts relating to constructions, namely profile determinant and elaboration site. The profile determinant is the component structure which passes its profile on to the
composite structure. Thus, *on* is the profile determinant (marked by a bold square) in *on the table*, because the construction inherits its relational profile. As Langacker notes, the profile determinant is closely related to what is traditionally referred to as a head (2008: 193). An elaboration site (or e-site), on the other hand, is a schematic element which is elaborated by another component, i.e. which corresponds to the profile of this other component (ibid. 2009b: 12). In the case of *on the table*, the schematic substructure of *on* functions as an e-site, which is elaborated by *table* (cf. the arrow joining them).

Finally, Figure 3 illustrates an important feature of the majority of constructions, referred to as A/D asymmetry: “One structure, D, is dependent on the other, A, to the extent that A constitutes an elaboration of a salient substructure within D” (ibid. 1987: 300). In other words, the dependent component “refers schematically to an autonomous, supporting structure as an intrinsic aspect of its own characterization” (ibid. 2008: 199). Thus, despite its status as profile determinant, *on* is the dependent component in *on the table*, because it requires *table* to elaborate its e-site. In CG, A/D asymmetry and profile determinance serve as the basis for determining whether a component functions as a modifier or as a complement. If the profile determinant is autonomous, the other component structure is a modifier: It contains a substructure which is elaborated by the head. If the profile determinant is the dependent component, the other component is a complement, because it elaborates a substructure of the head (ibid. 1987: 309; 2008: 203).

### 2.1.3. Construal

One of the most central notions in CG (as well as Cognitive Linguistics in general) is that of construal. Construal is defined as “our multifaceted capacity to conceive and portray the same situation in alternate ways”, or “to structure it by means of alternate images” (ibid. 2007: 435; 1987: 117). For example, two expressions such as *the mirror above the sink* and *the sink below the mirror* represent two different construals of the same scene. They are semantically
equivalent only in the sense that they represent the same situation, but differ in terms of how they represent it, i.e. which image they impose on this situation.

Construal phenomena are not only at work in the choice between two synonymous expressions, however. Rather, construal is omnipresent: It is not so much a cognitive ability that we can choose to use, but rather a mostly subconscious process that we employ automatically whenever we speak or even think about a certain situation. There is no objective way to conceive of a situation, but we invariably “construe it in some specific fashion, out of the countless alternatives that are in principle available” (ibid. 1999: 206).

In this sense, language and conceptualisation are similar to visual perception, because there, too, we always impose a certain structure on a scene and cannot perceive it neutrally. Thus, we automatically see certain areas as discrete objects, view some in sharper focus than others and distinguish between foreground and background. In CG, the apparent parallels between vision and conceptualisation play an important role. Langacker points out that a large number of construal operations can be seen as analogous to visual phenomena (1999: 206), and even uses visual metaphors such as “imagery” and “focal adjustments” to refer to the basic ability to construe, and specific kinds of construal, respectively.

Within the broad category of construal phenomena, a wide variety of more specific abilities have been identified, and there have been different suggestions as to how these can best be grouped (for an overview of different classifications of construal phenomena, see Verhagen 2007: 53-58). Langacker (2007: 435) distinguishes between four more general types of construal operations, namely specificity, perspective, dynamicity and prominence. Specificity is concerned with how detailed our conception of a situation is. Thus, depending on the level of detail with which we wish to construe it, we can refer to one and the same entity as a thing, object, piece of furniture, shelf, bookcase or Billy. Specificity also includes abstraction (the term originally used by Langacker for this type of construals in 1987), i.e. “our ability to establish commonalities between distinct phenomena and abstracting [sic] away from differences, and thus to organize concepts into categories” (Verhagen 2007: 53). Perspective comprises all those
construal effects that are most clearly connected to visual perception. Among these are vantage point, i.e. “the spot […] from which the scene is viewed” (Langacker 1999: 206), scope, i.e. “the extent of the conceptual content it evokes as the basis of its meaning” (ibid. 2007: 437) and the subjectivity versus objectivity with which a particular scene is construed. Dynamicity is a relatively new category in CG, and refers to the “development of a conceptualization through processing time” (Verhagen 2007: 53). It thus concerns mental scanning processes, and is responsible for the difference between expressions such as *The roof slopes steeply upward* and *The roof slopes steeply downward* (Langacker 2007: 438).

Prominence, finally, has to do with what is construed as salient. It also comprises the former category of selection, i.e. “which facets of a scene are being dealt with” (ibid. 1987: 117), in the sense that only more salient aspects will receive enough attention to become part of the conceptualisation, whereas others will be ignored. The two most important prominence phenomena are profiling, i.e. the selection of a profile (see 2.1.1.), and trajector-landmark alignment. The latter is relevant for relational predications, and determines which of the participants in the profiled relationship is construed as more salient. The more salient entity (the “primary focal participant”) is called the trajector (tr), while the landmark (lm) is the entity that receives secondary prominence and serves to describe or locate the trajector in some way (ibid. 2007: 436). To give a concrete example, the prepositions *above* and *below* in the previously mentioned phrases *the mirror above the sink* and *the sink below the mirror* profile the same relationship, but differ in terms of trajector-landmark alignment: In the former, *mirror* is the trajector and *sink* the landmark; in the latter, these roles are reversed.

### 2.1.4. Reference points

A specific form of construal that is of great relevance for the analysis of possessives is the so-called reference-point model, which is based on the idea that certain entities “are most easily located with reference to others” (ibid.
1991: 170). Langacker (ibid.) uses the image of the night-time sky to explain this phenomenon: While certain stars will naturally stand out to the viewer, others can only be found if we make an effort to find them, and we will most typically look for them by searching in the vicinity of a highly visible star that we know is somewhere near them. A reference point is thus a “salient entity used to locate another, less noticeable entity in relation to it” (ibid. 1999: 207).

The way we construe an entity via a reference point is illustrated in Figure 4. A conceptualiser (C) first establishes mental contact with some cognitively salient entity (as indicated by the dashed arrow). By making this entity the focus of attention, C makes it possible to use it as a reference point (R) for any other entity within its neighbourhood, i.e. its dominion (D). If R is indeed used to locate a certain entity, a mental path can be traced from it to this target (T). When this happens, T becomes the new focus of attention, and R loses in prominence: It “recedes into the background in favor of T” (ibid. 1999: 174). This process may repeat itself, with T becoming the reference point (R₁) for a new target (T₁), and so on indefinitely. This makes reference points an “inherently dynamic” phenomenon (ibid.).

![Figure 4: The reference-point model (Langacker 1999: 174)](image)

It is interesting to note that Langacker (1999: 207) classifies reference points as a subtype of perspective. This decision seems somewhat arbitrary, since there seem to be equally good arguments for seeing it as part of dynamicity or prominence. The reference-point model clearly involves some changes in conceptualisation through processing time, and Langacker himself explicitly points to its dynamic nature (see above). Furthermore, it concerns the relative salience of different entities, as well as the selection of an entity as primary focus (i.e. first the reference point, then ultimately the target). Both of these
characteristics point to a categorisation as a prominence phenomenon. Seen in this manner, reference points actually constitute a good example for the fact that categories are not always clear-cut. Just like any other conceptual categories, the proposed subclasses of construal are characterised by fuzzy boundaries and considerable overlap.

To come back to the reference-point model itself, it should be pointed out that it is given great importance within CG. As Langacker (1999: 201) states, “reference point organization represents so basic a cognitive ability that there may indeed be no linguistic phenomenon that does not involve it in some way.” The reference point function of the prenominal possessive will be discussed in some more detail in section 3.1.1.; other examples for cognitive reference points are topics or metonymy (ibid. 1999: 194, 198-199).

2.2. Language transfer

Language transfer, also known as crosslinguistic influence (or CLI; cf. Kellerman & Sharwood Smith 1986, Jarvis & Pavlenko 2008), refers to the impact one language can have on another one, “resulting from similarities and differences” (Odlin 1989: 27) between them. A classic example for a transfer phenomenon is the use of so-called false friends, i.e. words that look deceptively similar but actually mean something different, such as English become and German bekommen ‘to get’. This particular pair of words actually forms part of a short anecdote which serves well to illustrate the difficulties L1 habits can cause language learners: During her time as an au pair in London, my grandmother caused a whole shop to burst into laughter when she, after yet another unsuccessful attempt of buying bananas, vented her frustrations about the scarcity of the yellow fruit by loudly exclaiming that she could “never become a banana”.

While the above definition and example are both relatively straightforward, this should not be taken to mean that language transfer is a simple phenomenon. In fact, CLI is a cover term for a wide range of different kinds of processes that
involve two languages affecting each other. The complexity of transfer phenomena becomes apparent when looking at Jarvis & Pavlenko’s (2008: 20) characterisation of CLI. They distinguish different types of transfer on the basis of ten dimensions, namely “(a) area of language knowledge/use, (b) directionality, (c) cognitive level, (d) type of knowledge, (e) intentionality, (f), mode, (g) channel, (h) form, (i) manifestation and (j) outcome”. Within the framework of this paper, it would go too far to look at all of these factors in detail, but I will now go on to describe those three dimensions that feature most prominently in the literature on the subject. These three are directionality, outcome and area of language knowledge/use.

The standard scenario for language transfer is between a speaker’s first language (L1) and a second or foreign language (here both referred to as L2). This type of transfer has also been shown to have a special status within CLI (cf. section 2.2.2. below). However, CLI can take effect in other configurations as well. Transfer research has investigated L2 influence on L1 as well as the influence other foreign languages (LN) can have on an L2. The specification of which language affects which is what Jarvis & Pavlenko refer to as directionality (ibid.: 21). They propose a distinction between forward, reverse, lateral, bi- and multi-directional transfer. The terms forward and reverse transfer are in line with established conventions and denote CLI between L1 and L2, and L2 and L1, respectively. Lateral transfer is Jarvis & Pavlenko’s suggestion for CLI between two foreign languages, i.e. between LN and L2. Bi- and multidirectional transfer, finally, are used to refer to cases “where two languages that language users know function synchronously as both source and recipient languages”, and can thus combine with either of the other three types mentioned above (ibid.: 22). While this paper only investigates forward transfer, it might be important to point out at this stage that lateral transfer is assumed to be highly restricted. Thus, it was found that it mostly concerns transfer of lexical items that are similar in form, i.e. the use of false friends (Ringbom 1986: 160). The limited nature of CLI between LN and L1 has potential implications for the research at the heart of this paper, because it strongly suggests that any transfer effects that were found can really be attributed to the L1, rather than another L2. This is especially crucial due to the language situation in Finland, where Swedish
functions as a second official language and is an obligatory subject in Finnish schools. Even in this very specific setting, however, lateral transfer does not seem to play a decisive role: As Ringbom reports, “there seem to be hardly any clear instances of phonological or grammatical influence from Swedish on the English of Finnish learners” (ibid.: 156).

One assumption that is often made about CLI is that it mainly results in errors in L2 production. This is mirrored in earlier uses of the term interference, i.e. as synonymous with what I have been calling language transfer or CLI. While inaccurate language use might well be the most noticeable effect of CLI, it is now widely accepted that transfer can have positive as well as negative outcomes. Thus, interference has come to be used to denote just the negative effects of CLI, rather than CLI in general. Even when confining oneself to such negative transfer, it is important to note that it does not automatically result in errors, but also leads to underproduction, overproduction or misinterpretations (Odlin 1989: 36). Thus, CLI may also be at work when learners show a strong tendency towards using one construction rather than another, similarly acceptable one (Jarvis & Pavlenko 2008: 11). This is a likely outcome in the case of possessive constructions, since pre- and postnominal possessive are often equally viable options to code a relationship between two entities, and it will be one aim of this paper to investigate whether L1 influence really does cause learners to prefer one of the two constructions over the other.

The third dimension of CLI identified by Jarvis & Pavlenko that has been a source of much discussion is that of the area of language knowledge/use. As they themselves attest, language transfer has traditionally been associated with lexis and phonology, whereas CLI on the level of morphology and syntax has been seen as doubtful or at least much less significant (ibid.: 92). Jarvis & Pavlenko suggest that one possible reason for this tradition of underestimating transfer effects on grammar might be connected to their outcome: Because the main focus of research was often placed on errors, and morphological and syntactic transfer frequently manifests itself in the form of over- or underproduction rather than actual errors, in many cases these forms of CLI may simply have been overlooked (ibid.: 100-101). Furthermore, grammatical
transfer has likely been obscured by other, co-occurring processes, such as simplification and overgeneralisation (ibid.: 92). In any case, there is now clear evidence that language transfer operates on all levels of language use (ibid.: 61-111; cf. also Odlin 1989: 152).

2.2.1. Key factors affecting language transfer

Much of the research on CLI is concerned with what parameters determine the likelihood and/or degree of transfer, i.e. with what Jarvis & Pavlenko refer to as transferability (2008: 12). Various suggestions have been made as to what factors have an impact on CLI, but there is little consensus on which ones are the most influential, or even which affect language transfer at all.

A factor that is commonly assumed to interact strongly with language transfer is the distance between source and target language, as well as speakers’ perception of that distance. However, what is not so clear is whether it is differences or similarities between the two languages involved that are most likely to bring about negative transfer effects. Traditionally, it was believed that a greater distance between languages would entail greater difficulties in language acquisition, and increase the likelihood of negative outcomes of CLI. This view is still upheld e.g. by Taylor (1993: 213), who assumes that the main source of learning difficulties are idiosyncrasies in the target language, i.e. such (conceptual) structures that the source language lacks or that take a different shape in the two languages. Other researchers, e.g. Jarvis & Pavlenko (2008: 11), point to studies which show that differences do not always result in negative transfer or hinder acquisition, and emphasise that it is similarities, rather than differences, which may lead learners to (wrongly) equate certain structures. Bybee (2008: 232) takes a similar stance, claiming that whereas similarities between L1 and L2 make it possible for learners to use L1 constructions as a basis for L2 ones, L1 patterns will likely have a negative impact on the acquisition of finer details. Ringbom (1986: 154), on the other hand, argues strongly for the positive influence of similarities and maintains that “the relatedness of the L1 has a facilitating effect on learning”. A similar, though
perhaps slightly more moderate viewpoint, is expressed by Odlin (1989: 153): He comes to the conclusion that “while similarity between languages can create special problems, such as errors involving false cognates, similarity often confers important advantages”. Since German and Finnish differ substantially in their distance to English, both in terms of general relatedness and in the specific case of possessive constructions, the research done in this paper might also shed some light on how similarities and differences interact with language transfer, and thus contribute to the ongoing discussion surrounding this question.

Another rather controversial factor in CLI is the stage of learning a learner is at. Again, there seems to be little doubt that a speaker’s proficiency in the target language does indeed influence whether language transfer occurs, but opinions differ on what form this interaction takes. The most prominent claim is that CLI decreases more and more as learners reach higher levels of proficiency. Thus, it is assumed that negative outcomes of language transfer will play a greater role in early and intermediate stages of learning, while advanced learners will usually be less prone to interferences from their mother tongue (see e.g. Littlemore 2009: 21, 34). However, there is also evidence that negative transfer effects and the level of the recipient language are not inversely proportional. A possible explanation for CLI that only occurs at later stages of learning is given by Jarvis & Pavlenko (2008: 11-12), who suggest that this happens “when the learner has acquired enough of the recipient language to recognize the similarities between it and the source language”.

It may seem surprising at first that there is such disagreement on what parameters determine CLI, as well as their relative importance, but there are a number of likely reasons for the great variety of different views on the issue. First of all, language transfer is a highly complex phenomenon (cf. the ten dimensions of CLI quoted above), and different types of transfer might be affected by different kinds of interactions between different variables. Moreover, research on CLI is made even more challenging by the fact that the impact of individual variation must not be underestimated (Jarvis & Pavlenko 2008: 26; Kohn 1986: 23; Odlin 1989: 130-136). Of course, individual variation itself is not
just one factor, but a complex set of different variables, which may in
themselves be multifaceted, such as personality (in itself a multifaceted
phenomenon), language aptitude, attitudes towards language and learning, and
degree of motivation. Also, the fact that there is not just one parameter, but an
interplay of several, probably party overlapping ones, makes it very difficult to
identify which ones are at work and how decisive they each are. Finally, the
situation is further complicated by the limitation that CLI can only be observed
on the level of “transfer patterns”, i.e. in actual utterances produced by a
speaker, while the real object of investigation is “transfer as a process”, i.e.
what happens in the mind of the speaker (cf. Kohn 1986: 21-22). In other words,
any conclusions about CLI as a process are necessarily indirect, and thus more
susceptible to misinterpretations and wrong inferences.

2.2.2. Reconceptualising transfer: CLI in Cognitive Linguistics

In Cognitive Linguistics, language transfer is recognised as an important
process within second language acquisition (SLA). Compared to the more
traditional understanding of transfer sketched above, Cognitive Linguistics takes
CLI one step further in that it does not only conceive of transfer-as-a-process as
a mental phenomenon, but treats transfer patterns as cognitive as well, i.e. as
rooted in conceptualisation. Just as SLA is understood in terms of the
acquisition of “conceptual structures” (as well as their formal representations)
rather than of surface forms only (Taylor 1993: 212), CLI has been
reconceptualised so as to encompass the transfer of conceptualisations and
construal patterns.

Another striking feature of Cognitive Linguistic treatments of (forward) language
transfer is their emphasis on how it interacts with, or rather, results from first
language acquisition. As Ellis (2006a: 109) puts it, the mind of the second
language learner is no longer a tabula rasa, but a “tabula repleta”: When they
first acquire a language, children basically build up inventories of linguistic units
(both concrete and abstract ones, i.e. so-called “utterance schemas”, cf.
Tomasello 2000: 75-77) from scratch, by means of a bottom-up acquisition

24
process based on actual language input. Second language learners, on the other hand, can no longer approach their target language with a blank slate, because their mind has already been “tuned and committed to the L1” (Ellis 2006a: 109), and they have “reached a point at which the network can no longer revert to its original plasticity” (Ellis 2006c: 184).

The fact that our first language is already ingrained in our minds when we learn a second one makes it extremely difficult to reach a comparable level of proficiency in an L2, but it is still not entirely impossible: We are not trapped in the conceptualisations embedded in our L1 forever, as adherents of linguistic determinism would make us believe. Rather, advancing in SLA is a matter of overcoming cognitive habits that we have established during the acquisition of our first language (Littlemore 2009: 188). These take the form of particular ways of “thinking for speaking” (Slobin 1996: 76). Thinking for speaking refers to the special kind of thought processes that take place during on-line language production, and involves “picking those characteristics of objects and events that (a) fit some conceptualization of the event, and (b) are readily encodable in the language” (ibid.). Put differently, when we produce language our thinking is guided by (a) the perspective we choose to take on a situation, and (b) the possible means of expressing this situation offered by that language (cf. also Littlemore 2009: 20). It is claimed that first language acquisition does not only involve the construction of a specific linguistic inventory, but also the development of a certain mode of thinking for speaking, which in turn trains us to “pay different kinds of attention to events and experiences” than native speakers of other languages (Slobin 1996: 89). This is in line with what Ellis calls “learned selective attention” (2006b: 1), i.e. the idea that we are conditioned to pay more attention to certain cues than others. Language transfer, then, is the result of such L1 habits being highly entrenched (Ellis 2006a: 109; Robinson & Ellis 2008: 49) and thus more automated and more easily accessible, and L2 construal patterns deviating from the entrenched L1 ones.
2.3. Possession

It will come as no surprise that the notion of possession plays an important role in the discussion of possessive constructions. Possession and possessives are not only visibly linked by means of their names, but also because possession is the most likely candidate for the prototypical meaning of possessive constructions (cf. Taylor 1989, 1996, 2003). Indications for the primacy of the possession relation are e.g. that interrogatives like *Whose book is that?* are by default requests to name the owner, and that contrastive uses of possessives, such as *It’s not John’s book, it’s mine* also limit the meaning of the expression to possession (see Taylor 2003: 230-231).

While possession is a term that is commonly used and understood, it is still a very complex concept. Taylor (2003: 228), following Lakoff & Johnson's terminology in *Metaphors we live by* (1980: 69, 81), calls it an “experiential gestalt”, i.e. he sees possession as a “basic human concept” that people can appeal to in order to “organize their physical and cultural realities” (ibid.: 69) without having to break it down any further. Taylor (1996: 340) characterises this “possession gestalt” as follows:

(2) a. The possessor is a specific human being.

b. The possessed is an inanimate entity, usually a concrete physical object.

c. The relation is exclusive, in the sense that for any possessed entity, there is usually only one possessor. On the other hand, for any possessor, there is typically a large number of entities which may count as his possessions.

d. The possessor has exclusive rights of access to the possessed. Other persons may have access to the possessed only with the permission of the possessor.

e. The possessed is typically an object of value, whether commercial or sentimental.

f. The possessor’s right of access to the possessed are invested in him through a special transaction, such as purchase, inheritance, or gift, and remain with him until the possessor effects their transfer to another person by means of a further transaction, such as sale or donation.
g. Typically, the possession relation is long term, measured in months and years, not in minutes or seconds.

h. In order that the possessor can have easy access to the possessed, the possessed is typically located in the proximity of the possessor. In some cases, the possessed may be a permanent, or at least regular accompaniment of the possessor.

Langacker (1991: 169, 1995: 57, 2009: 82) proposes a wider notion of possession which allows for three prototypes, namely ownership (which conforms most closely to Taylor’s prototype characterisation), kinship and part-whole relationships which involve physical objects, especially the human body. He considers all these three notions to be “conceptual archetypes”, i.e. concepts we know from everyday experience that we understand as basic wholes even though they are in principle complex (ibid. 2009: 82). Thus, Langacker agrees with Taylor on the “gestalt” nature of the notion(s) of possession. What is more, he also acknowledges that ownership might indeed be the most central of the three notions (ibid. 1999: 177, 2009: 82). The reason Langacker gives for attributing a special status to ownership, kinship and part-whole relationships (rather than any of the numerous other kinds of relationship possessives can encode) is twofold: First, it is because they are “salient and ubiquitous in our experience”, and second, they are particularly suitable for functioning as reference-points (ibid. 1995: 59; cf. section 2.1.4.). Reference-point organisation, Langacker argues, corresponds to “abstract possession”, i.e. a more schematic concept of possession (ibid. 1991: 171). He maintains that both such a schematic description and a prototype characterisation are required to be able to fully account for possessive phenomena (ibid. 2009: 85). This conception of possession is certainly useful because it is both broad enough to encompass the wide spectrum of possessive relations, and specific enough to distinguish it from other, similar concepts, but it is not without its problems. In his justification of the link between reference-point function, the three possessive archetypes and possession, Langacker seems to fall prey to circular reasoning: As was mentioned above, Langacker argues for the prototype status of ownership, kinship and part-whole relations by pointing to their suitability as reference points; however, he also uses that same fact (i.e. that ownership,
kinship and part-whole relationships can readily serve as reference points) as evidence for the validity of the reference point model (2009: 93).

Another, even more extensive discussion of the concept of possession is that by Heine (1997). Based on a wider range of languages and possessive expressions (such as *have*-constructions, which are the primary subject of investigation in his work), he comes up with the following catalogue of “possessive notions” (ibid.: 34-37; examples partly modified by me):

(3)  a. physical possession (*PHYS*): possessor and possessee are physically associated with one another at reference time e.g. *John’s glass is empty, I will bring him another beer.*

b. temporary possession (*TEMP*): the possessor can dispose of [sic] the possessee for a limited time, but not claim ownership e.g. *[I use] John’s car [to go to work.]*

c. permanent possession (*PERM*): the possessee is the property of the possessor; typically the possessor has a legal title to the possessee e.g. *John’s car [had an accident, he has to buy a new one.]*

d. inalienable possession (*INAL*): the possessee is conceived of as inseparable from the possessor (e.g. a body-part or relative) e.g. *John’s eyes/sisters*

e. abstract possession (*ABST*): the possessee is not visible or tangible (e.g. a disease, feeling or psychological state) e.g. *John’s thoughts*

f. inanimate inalienable possession (*IN/A*): the possessor is inanimate; possessee and possessor are perceived as inseparable e.g. *the ceiling of this room, *the room’s ceiling

g. inanimate alienable possession (*IN/A*): the possessor is inanimate, and the possessee is separable from the possessor e.g. *the chairs from (??of) this room, *the room’s chairs*

Heine combines this list of possessive notions with a selection of the properties of prototypical possession as defined by Taylor (see above). However, he does not make explicit why he only includes some of these properties, but not others; it remains unexplained if he considers the characteristics he chose more
central, and why. In a further step, Heine then goes on to show which of the five properties of possession he took over from Taylor (i.e. 2a, b, d, f, h) apply to each of his own possessive notions. This is illustrated in Table 1.

The conclusion Heine (1997: 39-40) draws from the distribution of features in Table 1 is that “the various possessive notions differ greatly with regard to their relative degree of prototypicality”. The overall picture that emerges is presented in an image in the form of concentric circles, which is reproduced in Figure 5 below. As this figure shows, permanent possession represents the most prototypical case, while inanimate alienable possession is an example of a relation that is far removed from the prototype (ibid.: 40). It is interesting to note that inanimate alienable possession also seems to be the only one that cannot easily be represented by a nominal possessive construction. What is even more striking is that, according to Table 1 (though not Figure 5), abstract possession is less prototypical than inanimate inalienable possession, but the former can readily be expressed by a prenominal possessive (cf. 3e), while the latter clearly prefers *of* (cf. 3f).

<table>
<thead>
<tr>
<th></th>
<th>PHYS</th>
<th>TEMP</th>
<th>PERM</th>
<th>INAL</th>
<th>ABST</th>
<th>IN/I</th>
<th>IN/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>The possessor is a human being.</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>II</td>
<td>The possessee is a concrete item.</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>III</td>
<td>The possessor has the right to make use of the possessee.</td>
<td>+</td>
<td>+</td>
<td>+/−</td>
<td>−</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>IV</td>
<td>Possessor and possessee are in spatial proximity.</td>
<td>+</td>
<td>+</td>
<td>+/−</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>V</td>
<td>Possession has no conceivable temporal limit.</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>+/−</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 1: Prototypical properties of possessive notions according to Heine (1997: 39)

Figure 5: Heine’s “prototype characterization of possessive notions” (1997: 40)
While Heine’s prototype characterisation might seem very informative at first glance, there are a few problems. Thus, whereas the categories set up by Heine are illustrated well enough by the examples he gives, they are by no means as exhaustive as they purport to be. It is easy to think of possessives which cannot readily be explained by means of Heine’s possessive notions, including even such conventional expressions as John’s lawyer. Second, concluding that permanent possession is the prototype is like being surprised that an apple is still an apple when looked at from a different angle. Since Heine’s notion of permanent possession basically corresponds to Taylor’s definition of the prototype, it is no wonder that it is the most prototypical when analysed in terms of the properties of Taylor’s possession gestalt. Another problem is that Heine does not say anything about whether the parameters he uses are weighted or not. It feels counter-intuitive that all factors are equally important, but the way the parameters are presented it seems as if they are all on the same level. The fourth and final problem Heine’s theory has is one that it shares with Taylor’s account, or rather, that has carried over from there. Taylor never mentions how he compiled his list of properties of possession; it has to be assumed that he came up with these characteristics through introspection. This, however, is a rather questionable way of defining a prototype. Although Rosch, who first formulated prototype theory in the 1970s, states that prototypes are essentially defined by “people’s judgements of goodness of membership in the category” (2004: 98), the intuition of just one person can hardly be enough to determine the prototype.

2.4. A word on ELF

Quite unlike any other language in the history of the world, English has now firmly established itself as a global means of communication. If a native speaker of Spanish and a native speaker of Japanese meet at a business conference held somewhere in central Europe, they will almost certainly talk to each other in English. As a result of the global spread and dominance of English, there is now a growing trend to think of and investigate English not only as the language spoken and shaped by its native speakers, but as an international language of
communication. This (re)conception of English is usually referred to as English as a lingua franca (ELF).

ELF has been defined as “any use of English among speakers of different first languages for whom English is the communicative medium of choice, and often the only option” (Seidlhofer 2011: 7). Rather than being just a neutral description of a new type of English, ELF is ideologically motivated. It calls for a reconsideration and reconceptualisation of prevailing English language norms, which are still based on the belief that native speakers are the “custodians over what is acceptable usage” (Seidlhofer 2005: 339). In particular, ELF seeks to change the way English is conceived of in language teaching, with the aim of moving away from the still predominant ideal of the native speaker towards that of a competent ELF speaker.

This paper is, as will have become evident from its research interests and the rationale behind them, not written from an ELF standpoint. Rather, I have adopted the common view that native competence does constitute an important model for second language learning, such as when I argued that it might be important for learners of English to understand the differences between their own conceptualisations and those made by native speakers (cf. section 1). Why, then, one might ask, is there a whole section devoted to ELF? The answer is simple: This study owes a lot to the advances made in ELF, since its application part relies heavily on data from ELF corpora. These have proven valuable for the line of research pursued here because they consist of naturally occurring spoken language from non-native speakers of English – a type of data that is difficult to obtain otherwise, especially with respect to native speakers of German and Finnish.

What is important to point out is that while I do not approach my research from the point of view of ELF, this does not mean that I disagree with the issues raised by its proponents. In other words, just because I choose to view my topic from a different angle, it does not mean that I think an ELF perspective would not be equally valuable. To follow my line of thinking here, it might be useful to bear in mind that ELF does not aim at a complete overthrow of mainstream approaches to language teaching either, but rather at a widening and re-
evaluation of the existing system: As Seidlhofer (2011: 17) states, native English is still a suitable model for certain groups of learners, such as those living in or wanting to live in an English-speaking country, or those that wish to identify and blend in with native English culture for some other reason. Finally, investigating language transfer and comparing learner language to native English is also of interest for purely non-pedagogical reasons, namely to try to deepen our understanding of the interplay between language and conceptualisation.
3. Defining the object of investigation: Possessives

In this chapter, I will give an overview of the linguistic expressions under scrutiny in my study, i.e. possessive constructions, or possessives in short. Since the number of possessive constructions as well as their formal and semantic characteristics are language-specific, I will discuss the situation in the three languages of interest (i.e. English, Finnish and German) separately. The focus will be placed on English, whereas the sections on Finnish and German will be kept comparatively short. The reason for this uneven distribution is that German and Finnish possessive constructions are of interest only in so far as they provide information about the language background of the two learner groups, while English possessives are the phenomenon that is being investigated in this paper.

Before venturing into more detailed descriptions of possessive constructions in English, German, and Finnish, however, I would like to make a few general comments about what (broad) type of expressions I call possessive constructions, and which expressions I will not discuss under the umbrella of possessives here, even though they could be considered possessive and are sometimes referred to as such.

The term possessive has been used both in a wider and a narrower sense than in this paper. The narrowest understanding of possessives limits the term to possessive pronouns and possessives suffixes (see e.g. Toivonen 2000). In the widest sense of the word, possessive applies to any kind of construction that relates to the notion of possession as described in section 2.3. Thus, the term is sometimes taken to include constructions at the level of the clause, such as constructions with have or be (see e.g. Langacker 2009b: 91-102). For the purpose of this paper, I will limit the term possessive (construction) to nominal expressions, however. More specifically, I will understand as possessive such constructions which involve two nouns (in the broad CG sense of the term, cf. section 2.1.1.) which function as a nominal (i.e. the CG equivalent of a noun phrase, cf. Langacker 1987: 126). In accordance with convention, I will refer to the head of this nominal as possessee, and to the second, modifying noun as possessor.
3.1. ’s versus of: Possessive constructions in English

In English, the two main units responsible for attributing possessive meaning to a nominal are the preposition of and the possessive morpheme (POSS), which usually takes the form of ’s, but is also assumed to be present in the possessive form of personal pronouns. Accordingly, one can distinguish between two possessive constructions, a prenominal one involving POSS (4a) and a postnominal one involving of (4b).

(4) a. John’s/my bicycle
   b. the roof of the house

Apart from these two constructions which contain one possessive element each, there is also a third one which combines both POSS and of. This kind of possessive, sometimes referred to as double possessive, is exemplified in (5).

(5) a friend of John’s/mine

While this type of construction definitely qualifies as a possessive as defined above, it will nevertheless be disregarded for the purpose of the analysis of learner language done in this paper. The main reason for this decision lies in the fact that, compared to prenominal POSS- and postnominal of-constructions, double possessives are a relatively marginal phenomenon. A quick and dirty search of the BNC results in only 12 464 tokens of (potential) double possessives (excluding possessive pronouns), as compared to 415 715 tokens of other (prenominal) possessor nominals (again excluding pronouns). What is more, even this ratio of 1:33.4 is too high to accurately represent the actual number of double possessives, as a look at the concordance list reveals: The majority of examples are actually combinations of prenominal and postnominal possessives (e.g. 6a), or of a prenominal possessive and another kind of of-phrase (e.g. 6b).

(6) a. an analysis of society’s reaction (BYU-BNC, FU4)
   b. a flood of readers’ letters (BYU-BNC, CH1)
The assumption that the actual frequency is in fact considerably lower is further supported by the results of a search for double possessives with a pronominal possessor phrase. While this is arguably the most typical use of this construction, it still only results in 2 500 hits, i.e. renders a ratio of about 1:150 when compared to possessor phrases of the type \( X's \). Thus, because of its low frequency, excluding the double possessive should not affect the discussion of the choice between prenominal and postnominal possessive too much. Leaving double possessives out of the equation might in fact even serve to clarify the overall picture somewhat, because they are both semantically and syntactically more constrained than the other two possessive constructions and thus interact with them (as well as so-called appositive of-constructions, see below) in a special way (cf. Taylor 1996: 327-338), which is not directly relevant to the phenomenon under investigation here.

### 3.1.1. Prenominal possessive

The term prenominal possessive refers to constructions of the type \([(X \text{ POSS}) \ Y]\). The component structures that make up this composite nominal are a noun (the possessee) and a preposed possessive modifier, which is itself a complex unit consisting of a nominal (the possessor) and the possessive morpheme. The compositional path behind prenominal possessives is illustrated in Figure 6, which takes \( John's \ book \) as an example.

At the first level of constituency, the possessor nominal, \( John \ (J) \) combines with the schematic possessive morpheme (POSS) to form the larger structure \( John's \). This structure inherits its profile from POSS, i.e. it functions as a relation rather than a thing. POSS is thus the head of this structure, and is complemented by \( John \), which elaborates its schematic landmark. At the second level of constituency, \( John's \) then combines with \( book \ (B) \) to form \( John's \ book \). The profile of this composite expression is determined by the possessee, \( book \), which thus functions as the head of the construction. \( John's \) is the dependent component, because it needs \( book \) to elaborate one of its salient
substructures, namely its trajector. It thus functions as a modifier, and is accordingly called possessive modifier by Langacker (cf. 1991: 174).

The basic structure of a prenominal possessive can be expanded considerably. Both possessor and possessee can be pre- and postmodified (7a,b) and contain post-head complements (7c). Moreover, a prenominal possessive can even be expanded by means of yet another prenominal possessive (7d). On formal grounds, this is possible because any prenominal possessive forms a nominal, and can thus be used as possessor nominal in a larger prenominal possessive construction. This potential for recursivity can also be explained in semantic terms: The reference-point model allows us to use the target of one reference point as the reference point for yet another target, and so on and so forth (cf. section 2.1.4.)

(7) a. the incredibly intelligent professor I met yesterday’s theory
b. John’s wonderful new book for advanced students of English
c. the student of linguistics’ dislike of the generative paradigm

Figure 6: Compositional properties of prenominal possessives (based on Langacker 1995: 62)
d. my mother’s friend’s husband’s view on possessive constructions

The expandability of prenominal possessives does not entail that they can be combined with any kind of structure found in nominals, however. Thus, they are incompatible with most quantifiers (8a) and cannot receive a determiner (8b).

(8) a. *John’s all/any/each/some book(s)
b. *a/the John’s book

The reason why prenominal possessives cannot take determiners is because they are in fact parallel to them in an important respect. In CG, prenominal possessives are analysed as “grounding elements”, i.e. as elements “specifying the epistemic status of a thing or process with respect to the ground, i.e. the speech event and its participants” (Langacker 2009: 85-86). In this sense, they can be said to have determiner function themselves, which explains the restriction that prenominal possessives and determiners are mutually exclusive.

While the formal characteristics of the prenominal possessive are relatively undisputed, there has been a lot of discussion surrounding its semantic properties. Traditionally, prenominal possessives have been described by means of lists of subtypes, each of which is assumed to encode a different kind of relation. An example for such a taxonomy is the classification proposed by Quirk et al. (1985: 321-322). They divide possessives (which they call genitives) into a total of eight categories. These are given in (9).

(9) a. possessive genitives
e.g. Mrs Johnson’s passport
b. subjective genitives
e.g. the boy’s application
c. objective genitives
e.g. the boy’s release
d. genitives of origin
e.g. the general’s letter
e. descriptive genitives
e.g. a doctor’s degree
f. genitives of measure
e.g. ten days’ absence
g. genitives of attribute  
e.g. the victim's courage  

h. partitive genitives  
e.g. the baby's eyes

Following Taylor (1994; 1996: 287-314), I will analyse examples such as (9e) as “possessive compounds” rather than as a kind of prenominal possessive. Although there is considerable overlap between possessive compounds and prenominal possessives, it is still important to distinguish between the two. The reason for positing two different constructions is that there are two possible readings for an expression such as a doctor's degree: It could be understood as either a [doctor's degree] ‘a doctorate, i.e. one of the highest degrees given by a university’ or as [a doctor]'s degree ‘any degree (not necessarily a doctorate) held by a doctor’. Only the latter reading will be considered a prenominal possessive here; the former is a possessive compound, and as such will not be treated in this paper, because it does not play a role in the choice between pre- and postnominal possessive constructions.

Apart from descriptive genitives, all other types of possessives listed by Quirk et al. do indeed qualify as prenominal possessives as they are understood in this paper. Still, it is doubtful whether taxonomies of meanings such as theirs are really conducive to a semantic description of possessive constructions. First of all, the taxonomic approach gives the impression that prenominal possessives fall into a limited number of distinct categories, with clear-cut boundaries between them. In practice, this strict classification proves problematic: Many instances of prenominal possessives do not fit neatly into just one category, but may be ambiguous between two or more categories, or may not be adequately described by any of the proposed subclasses. Moreover, as Taylor (1996: 7) and Nikiforidou (1991: 150) observe, the taxonomy approach fails to explain why one and the same morpheme can express so many different meanings, and therefore gives the wrong impression that the prenominal possessive is homonymous.

Another way of dealing with the various relations prenominal possessives can encode has been to assume that such constructions are semantically highly
vague. Some linguists even claim that they can imply any kind of relation between two nominals. An extreme example of such a view is the one expressed by Williams (1982: 283) in his so-called Det Rule: “The relation between the possessive NP and the following N' can be any relation at all.”

Such claims about the semantic indeterminacy of prenominal possessives, however, have been proven wrong. Taylor (1989, 1996) has put forth a number of arguments which show that while many prenominal possessives do indeed permit various readings, the interpretation of their meaning is by no means a case of anything goes. Thus, an expression like *John's wife is very specific, and cannot e.g. refer to “the married woman John always talks about” (Taylor 1989: 669), nor is it possible to combine any entity with any other entity, or expressions like *the chips’ fish should be acceptable (ibid. 1996: 9). Langacker (1991: 169) pursues a similar line of argumentation. He points out that there seems to be an inherent asymmetry between possessor and possessee, and that it is therefore misguided to posit that prenominal possessives can denote any kind of relationship between two entities.

To explain the relative flexibility of prenominal possessives, Taylor (2003: 231) resorts to a prototype approach, claiming that they allow “very considerable extension” from their prototype, i.e. possession (cf. section 2.3.). As was mentioned earlier, Langacker’s definition of prototypical possession is of course a lot wider than Taylor’s. What is more, he adds yet another level to the description of possessives², namely the schematic one he calls abstract possession. This schema, he argues, corresponds to the reference-point model described above.

Figure 6 can help to illustrate how prenominal possessives relate to the reference-point model. As is evident from its visual representation, POSS is assumed to have the reference-point model as its base (cf. Figure 4), and to profile the reference-point relationship within this base. In other words, POSS invokes as its basic meaning the dynamic relationship between ground,

² Langacker does not explicitly state that he is only referring to prenominal possessive constructions and/or excluding of-constructions from this characterisation of possessives, but does say that he is “referring most specifically to determiner constructions”, for which he exclusively gives examples in the form of the prenominal possessive (1999: 174; my emphasis).
reference point and target (as represented by the two bold arrows, one leading towards R, the other from R to T); POSS is thus inherently relational. It is also highly schematic: Both its trajector (T) and its landmark (R) require elaboration. At the first level of constituency, POSS’s schematic landmark is equated with the entity profiled by the possessor nominal, John. The resulting structure, the possessive modifier John’s, still profiles the reference-point relationship, but is now schematic only with respect to its trajector. This trajector is then elaborated by the head noun, book. The composite expression, John’s book, still shares its base with POSS, but profiles a different part of this base, namely the target, i.e. the entity denoted by book. Following this analysis, the common meaning of all prenominal possessive constructions is that one thing (the possessor) is used as a reference point for another one (the possessee). What is important is that this connection is primarily a subjective one: By using a prenominal possessive, the speaker chooses a certain subjective path from R to T. This path may well correspond to some objective relationship between the two, but the objective path is not what is encoded by the construction. Rather, the objective relationship between the two entities may lead a speaker to choose his subjective path accordingly, i.e. it “motivates a particular choice of possessor/possessed alignment”, but does not constitute it (Langacker 1991: 171). The constituting factor is the subjective construal of a reference-point relationship between possessor and possessee.

3.1.2. Postnominal possessive

In my understanding, the term postnominal possessive refers to constructions of the type [Y of X]³. Thus, compared to the prenominal possessive, the linear order of possessor and possessee is reversed: The element preceding of is the possessee, i.e. the head noun; the element following of is the possessor, i.e. the (modifying) nominal. Just as is the case with prenominal possessives, the whole construction functions as a nominal.

³ I am thus following Deane (1987) and Keizer (2007a,b) rather than Taylor (1996), who uses the same term to refer to constructions such as an acquaintance of mine, i.e. what I have referred to as double possessives.
The relation of the *of*-phrase to the possessee is dependent on the type of noun that functions as head of the whole construction. When Y is a relational noun, the *of*-phrase is a complement, because it is necessary to complete Y’s meaning (10a). When Y is not relational, the *of*-phrase is assumed to be a modifier, because it simply adds additional information to a semantically independent head (10b).

(10) a. the cover of the book  
    b. the dog of my neighbour

However, as Keizer (2007b: 245-263) has shown, this traditional distinction is actually far from clear-cut. Rather, she argues, the categories complement and modifier both exhibit prototype structure. Consequently, the assignment to either category is not so much a question of either-or, but rather of better and worse examples along a scale. A similar point is made by Langacker (1999: 81-82) in his analysis of a postnominal possessive, *the father of the bride*. He points out that the complement-modifier distinction is a matter of degree in the case of an *of*-phrase being combined with a relational noun such as *father*, because both structures actually elaborate each other.

![Diagram](https://via.placeholder.com/150)

Figure 7: Correspondence links between relational noun and *of*-phrase (cf. Langacker 1999: 81)

---

4 This is of course equally true for the prenominal possessive, cf. e.g. *John’s arm, the bride’s father*. The reason I discuss this distinction with regard to the postnominal possessive is simply that both Keizer (2007b) and Langacker (1999) talk about the complement-modifier distinction with reference to the postnominal construction.
The way the two structures supplement each other is shown in Figure 7\(^5\). Both component structures contain a schematic substructure that needs elaboration. *Of the bride* requires *father* to elaborate its schematic trajector, while the meaning of *father* is completed by the *of*-phrase in two respects: *the bride* is put in correspondence with the schematic entity (i.e. the offspring) which is part of *father*’s base, and, perhaps more importantly, the parent-offspring relationship as a whole is elaborated by the relation evoked by *of the bride*.

Following the CG definition of complement and modifier given above (cf. section 2.1.2.), the relationship between head and *of*-phrase thus shows characteristics of both modifiers and determiners. The *of*-phrase behaves like a modifier in that it needs the head to elaborate one of its salient substructures, but at the same time it can be said to function as a complement because it elaborates a salient substructure of the head. According to Langacker (1999: 82), postnominal possessives do however correspond better to one type of head-dependent configuration than the other. Since the trajector in *of the bride* is a more salient e-site within its base than the schematic offspring is within *father*, postnominal possessives are more readily described as a head-modifier construction. The same argument holds true for prenominal possessives.

There is one important aspect in which the postnominal possessive strongly differs from its prenominal counterpart. As was shown above, expressions of the structure [(X POSS) Y] are basically all instantiations of the prenominal possessive construction, with the exception of some possessive compounds. As far as structures of the type [Y of X] are concerned, however, it is possible to distinguish a whole array of other constructions which superficially look the same, but have a different meaning and behave differently in terms of their use in larger structures.

A comprehensive account of the different types of *of*-constructions is given by Keizer (2007b). She distinguishes five broad types of non-possessive *of*-constructions, which can each be subdivided further into even more fine-

\(^5\) Note that the entities which form part of the component structures are connected by means of a double, rather than a single line. This double line stands for the intrinsic nature of their relationship (cf. Langacker 1999: 76) and is thus typical for relational nouns.
grained categories. The broad classification into five types is given in (11). What should be kept in mind is that the categories in this taxonomy are not meant to be understood as discrete categories in the classical sense. Instead, they are assumed to be built around prototypes, and therefore allow for gradedness and in-between cases.

(11) a. of-appositions  
   e.g. the city of London  

b. binominals  
   e.g. a beast of a man  

c. partitive constructions  
   e.g. one of the students  

d. pseudo-partitive constructions  
   e.g. a slice of bread  

e. sort/kind/type-constructions  
   e.g. a kind of magic  

While Langacker does accept that of is polysemous (1999: 76), he still does not differentiate between different type of of-constructions. Even in his discussion of of as a “possessive element” (1995: 67), there are no indications that he assumes the existence of several (related but different) kinds of of-constructions. Quite the contrary, Langacker stresses the unifying factors behind all nominals involving of, and argues for a semantic characterisation of of that is shared by all of its instances. or a semantic characterisation of of that is shared by all of its instances. As with POSS, he defines both a schema and a prototype for the meaning of of. These are given in Figure 8.

![Figure 8: Prototypical and schematic meaning of of (Langacker 1999: 77)](image)

The prototypical value of of is that of the relationship between a more inclusive landmark and a more specific trajector, which is an “inherent, restricted subpart”
of the landmark (ibid. 1999: 76). This prototypical meaning does apply to some of-constructions, including partitive (11c) and pseudo-partitive constructions (11d), as well as some of-constructions that I would consider possessive (12a), but is doubtful (12b) or even simply inappropriate (12c) for other postnominal possessives, as well as of-appositions (11a), binominals (11b) and sort/kind/type-constructions (11e).

(12) a. the tip of her nose  
    b. the colour of her freckles  
    c. the girl of my dreams

According to Langacker (1995: 67), the element that connects all uses of of is its schematic meaning. This schema, he argues, is that of of profiling an “intrinsic relationship between its trajector and landmark”. This definition might seem abstract enough to be able to accommodate all the different types of of-constructions, but in fact it is rather problematic. Thus, even when applying this schematic description to the limited number of examples given in (11) and (12), there are two, namely (11b) and (12c), which are not compatible with it. What is more, Langacker’s characterisation of of is rather unsatisfactory because it does not make it possible to clearly distinguish between the meaning of the prenominal and the postnominal possessive (see below), even though it is a central concern of CG to prove that even superficially synonymous-seeming expressions do in fact differ in terms of how they construe the situation in question (cf. section 2.1.1.).

3.1.3. Accounting for the distribution of ’s and of

Traditionally, the prenominal and the postnominal possessive have been seen as synonymous or at least largely similar in meaning. In the Generative paradigm, they have even been analysed as different surface forms deriving from the same deep structure (see e.g. Chomsky’s 1970 proposal of three different types of prenominal possessives, one of which is derived from an of-construction). The view that the two possessive constructions are basically two
different ways of encoding the same meaning is also held by Quirk et al. (1985: 321), who state that “[i]n many cases, […] the two forms are equivalent in meaning”. Still, they also recognise the fact that of and ’s are not in a full paraphrase relationship. This is an important observation to make, since there are indeed many cases when the two possessive constructions are not interchangeable. One obvious example is that of pronominal possessors, which occur almost exclusively in the prenominal construction (13). Moreover, with a large number of combinations of nouns, there are clear preferences for one or the other construction. Thus, we tend to say the ceiling of the room (cf. ??the room’s ceiling), but John’s bicycle (cf. ??the bicycle of John).

(13) a. my diploma thesis
   b. *the diploma thesis of me

Taylor (1996: 10) points out that even when both a prenominal and a postnominal variant exist, they do not necessarily always mean the same. He mentions the two expressions news of yesterday and yesterday’s news as an example: While the former refers to something that happened yesterday, the latter could also be used for news that was reported or received then. This, together with the strong restrictions on when either possessive is (more) acceptable, he takes as evidence that there are indeed two different constructions, which, differ in meaning despite having some overlap and therefore need to be distinguished. This conception of possessive constructions is now widely accepted (see e.g. Gries & Stefanowitsch 2004, Keizer 2007a,b), and is also a crucial assumption underlying the research done in this paper.

How, then, do the prenominal and the postnominal possessive differ? If we combine the CG descriptions that I gave in the previous sections, the resulting picture is something like the one given in Figure 9, which shows the semantic structure of both a pre- and a postnominal possessive construction involving a relational noun (N) and an unspecified possessor nominal (X). At first sight, it might seem that there is an obvious difference between the two: The prenominal possessive has the reference-point model as its base and construes N from that perspective, whereas the postnominal possessive construes N in terms of its intrinsic relationship to X. However, a closer look proves that the
distinction between the two is all but clear. Thus, it seems as if the prenominal variant is a more inclusive construction, because the conceptualisation it encodes contains the one made by the postnominal possessive. At the same time, it could also be argued that it is more specific, because it further elaborates and extends the conceptualisation made by a possessive with of. Neither of these assumptions is supported by the data, however, as it can easily be proven that neither construction forms a subtype of the other.

There are further problems with Langacker’s descriptions of constructions involving of and POSS. To be fair, Langacker does not claim to give a full account of possessives (1999: 387) and instead refers to other works on the subject (1995: 77), such as the one by Dean (1987) and Taylor (1989). Still, that does not change the fact that his schematic characterisations lead to inaccurate conclusions about these two constructions. Moreover, because of their abstract nature, the differences in construal that the schemas represent are tenuous at best. The way Langacker writes about of and ’s, the meanings of the two constructions become blurred almost to indistinction. He states that reference-point function and the concept of an intrinsic relation “have broadly overlapping applicability and are readily combined” (1999: 181), that the fact that of-phrases can express reference-point relationships “is fully compatible with their meaning” (1995: 67), and even that their schematic value “implies the reference-point relation and has little if any additional content” (ibid.: 68). Thus, it is not surprising that Langacker comes to the conclusion that the only difference between two expressions such as Kennedy’s assassination and the assassination of Kennedy is that “Kennedy’s profiles the reference-point
relationship per se, whereas of Kennedy profiles the relationship of intrinsicness (which has a reference-point relationship as a consequence)” (ibid.: 69). Quite clearly, this is not enough to explain the distribution of and choice between the two possessives, or even to postulate that they constitute two different constructions. A similar observation is made by Stefanowitsch (2003: 424-425), who also points out that the schema approach fails to explain what the restrictions on the use of either constructions are, and why such restrictions even exist in the first place.

Since Langacker’s schematic analysis is clearly insufficient, we have to turn to other descriptions to account for the complex phenomenon of English possessive constructions. There have been various suggestions as to how the choice between ’s and of is determined. One common strategy has been to try to reduce the differences between the two constructions to just one decisive factor, but different approaches disagree on what this factor is. For Roger Hawkins (1981), for example, the linear order of the nominals involved (and hence also the choice between a prenominal and a postnominal possessive) can be traced back to their animacy. He therefore comes up with an animacy hierarchy according to which possessor and possessees are arranged (ibid.: 260). This hierarchy is given in (14).

\[
(14) \quad [\text{HUMAN} < [\text{HUMAN ATTRIBUTE}]] < [\text{NON-HUMAN ANIMATE}] < [\text{NON-HUMAN INANIMATE}]
\]

Another parameter that has been claimed to be decisive is topicality. This explanation was put forward by both Deane (1987) and Taylor (1996). Deane’s account deals with possessive constructions from a discourse function perspective. Thus, he defines topicality as something that is “central but backgrounded in discourse” (1987: 71), and claims that, in accordance with the usual alignment of topic and focus, topical possessors will lead to a strong preference for the prenominal possessive, while a topical possessees will typically result in a postnominal of-construction (ibid.: 71-72). To determine the relative topicality of nominals, Deane uses the so-called Silverstein hierarchy, originally a means to predict split-ergative case marking systems, which he reinterprets as a “hierarchy of NP markedness as topic” (ibid.: 76). Taylor
arrives at the same reason for possessor-possessee alignment, i.e. the linear precedence of the more topical entity, but he does so via a slightly different route. He takes Langacker’s reference-point model as a vantage point and extends it so as to make it applicable to the postnominal possessive as well. In Taylor’s opinion, then, the prenominal and the postnominal possessive construction differ in terms of the “mental route that the conceptualizer needs to follow in order to identify the possessee” (1996: 18). Since the possessor phrase in a prenominal possessive precedes the possessee, it can aid the conceptualiser in identifying the possessee by signalling that they need to look for it in the vicinity of the possessor phrase. Postnominal possessors, on the other hand, cannot function as such reference points, because they are only mentioned after the possessee has already been named. Taylor combines this extended reference-point model with a notion of topicality based on Chafe’s concept of three “activation states” (1987: 25), claiming that topical entities are usually active, and therefore “cognitively accessible” (Taylor 1996: 211). This accessibility or activatedness is what allows a topical nominal to function as a reference point for a maximally non-topical second one. Thus, according to Taylor’s theory, the prenominal possessive is chosen whenever the possessor is more topical (i.e. more activated) than the possessee, whereas the relative topicality of the two nominals is reversed in postnominal possessives.

Yet another suggestion for the defining factor in the choice between possessive constructions is complexity, which was proposed e.g. by John A. Hawkins (1994). He suggests that the difference between the prenominal and the postnominal possessive can ultimately be traced back to the ratio of immediate constituents (ICs) to non-immediate constituents or words, because “the human parser prefers linear orders that maximize the IC-to-non-IC ratios” (ibid.: 77). This, he argues, is the case because we try to be as efficient as possible. The IC-to-non-IC ratio interacts with efficiency because it correlates with the size of the CRD, a central concept in Hawkins’ theory. The CRD is defined as “the set of terminal and non-terminal nodes that must be parsed in order to recognize M [= the phrasal mother node] and all ICs of M” (ibid.: 58-59). It is seen as an important cognitive factor in so far as the CRD provides the basis for the interpretation of a given structure. The higher the IC-to-non-IC ratio is, the
simpler and more efficient the CRD will be, which in turn renders certain constructions preferable. In the case of the English possessives, Hawkins’ analysis relies on three structural principles which he assumes to govern English noun phrases. These are reproduced in (15).

(15) a. If an IC is prenominal within NP, then it is possibly single-word in the CRD for NP.
   b. If an IC is necessarily multi-word in the CRD for NP, then it is postnominal.
   c. If an IC is possibly single-word in the CRD for NP, then it precedes all necessarily multi-word ICs. (ibid.: 291)

According to Hawkins (ibid.: 292), these three principles are confirmed in the distribution of pre- and postnominal possessors, because the former are indeed often single-word, while the latter, i.e. of-phrases, are of necessity always multi-word. He thus concludes that the complexity of the possessor phrase is enough to determine which of the two constructions will be preferred.

While all of the accounts described so far have tried to account for possessive constructions by means of just one single determining parameter, there have also been a number of analyses that propose an interplay of several factors as likely explanation for the differences between the two possessive constructions. For example, Devriendt (1983) reduces the distribution of what she calls GEN and OF-phrase to two principles, namely a “linearity principle” (ibid.: 451) and a “principle of animate(d)ness” (ibid.: 490). The former basically corresponds to topicality (in the sense of information value): Devriendt assumes that preposed elements are more prominent than postposed ones, and thus concludes that POSS is associated with given information, while of-phrases introduce new information (ibid.: 425). In her model, animacy is relevant in so far as it constitutes the only important constraint on this division of labour between pre- and postnominal possessive, namely that the possessor in prenominal constructions can only be animate (ibid.: 490). In the case of inanimate possessors, therefore, the information status pattern cannot apply, since speakers cannot freely choose between pre- and postposition. The reason Devriendt gives for the dominance of this animacy constraint over the basic
principle of topicality is a non-linguistic one: In her opinion, it is a “manifestation of the anthropocentric world view” we human beings hold (ibid.: 546).

Another multifactor account is the one by Rosenbach (2001, 2002, 2003). She considers a total of three factors to be crucial, namely animacy, topicality and the prototypicality of the possessive relation encoded by the two nominals. Of these three factors, animacy was assumed to be the most important, followed by topicality, with the possessive relation being the least influential. On the basis of this ranking of parameters, Rosenbach (2002: 267) comes up with a “preference structure” for English possessives (cf. Figure 10). According to this model, the prenominal construction is chosen almost exclusively with [+animate] and [+topical] possessors, while the postnominal construction dominates in the inanimate domain (cf. Figure 10). Thus, the likelihood of a speaker opting for a certain possessive construction decreases progressively the further the possessor phrase is removed from the respective end of the scale in terms of the features animacy, topicality and prototypicality.

Just as was the case with Langacker’s schematic description, all of the above-mentioned accounts can easily be shown to be insufficient to characterise the complex distribution of English possessive constructions found in actual language use. This task was undertaken by Keizer (2007a,b). She discusses most of the approaches outlined here, and demonstrates that they are problematic in two respects. First, they usually suffer from internal problems, such as overgeneralisations or the unjustified exclusion of certain subtypes of possessive constructions. Second, the parameters they identify are not enough
to account for the wide variety of possessives found in real-world data. To remedy this situation, Keizer proposes her own multi-factor account. She suggests that at least the following ten factors are responsible for the choice between a prenominal and a postnominal possessive:

(16) i.  topicality versus saliency of the possessor/possessee  
   ii.  activatedness of the relation between possessor and possessee  
   iii. intrinsicness of the relation between possessor and possessee  
   iv. ‘referent point’ versus specifying function of the possessor  
   v.  complexity of the possessor  
   vi.  the gender/animacy of the possessor/possessee  
   vii. number of the possessor  
   viii. scope ambiguities  
   ix. presence of certain types of pre- or postmodifier of the head noun  
   x.  stylistic considerations (2007b: 353)

Looking at the parameters listed in (16), an obvious but crucial difference between Keizer’s and other accounts is the number of factors that are deemed important. Thus, Keizer’s proposal is much less reductionist than previous ones, even if she does consider some parameters more central than others. Thus, the activatedness of the possessive relation and the complexity of the possessor are identified as the most powerful factors, because they tend to overrule other factors that they are in contradiction with (2007a: 81). What is more, Keizer’s multi-factor account does not claim to be an exhaustive description of the phenomenon. As she herself acknowledges, the precise patterns of interaction between the different parameters are left open to some degree, and warrant further research on the subject (ibid.).

The choice between the prenominal and the postnominal possessive construction is also the focus of a study done by Hinrichs & Szmcerecsanyi (2007). However, they tackle this question in a very different way than the other accounts described above. Instead of coming up with a new array of parameters themselves, they simply took a whole range of factors that had been put forward previously, and tested them on corpus data. The results they got are summarised in Figure 11, which shows the -2 log likelihood of the
different variables, i.e. how much less predictive power the overall model would have if a certain factor was removed (ibid.: 463-464). According to this measure, the three most important factors were all related to the possessor phrase: The strongest indicators for a certain construction were the animacy of the possessor, its length and the presence or absence of a final sibilant.

While this statistical approach to possessives might seem like a straightforward solution to a long-standing problem, it is in fact highly problematic. The sample Hinrichs & Szmrecsanyi use is far too controlled to accurately represent actual language use, because they exclude a whole number of possessive constructions (ibid.: 446). Moreover, some of the operationalisations they use in their analysis are much too narrowly defined. For example, they only marked those nominals as given that had occurred within 50 words prior to the possessive in question (ibid.: 451-452). In this light, it is not surprising that they found that givenness was not an important factor in the choice of possessive construction.

Another quantitative and yet radically different approach to English possessives is the one developed by Gries & Stefanowitsch (2004). They study possessives by means of what they call “collostructional analysis”, i.e. an analysis looks at collocations in terms of “the syntactic and semantic structures in which words occur” (ibid.: 100). They found that animacy is an important factor, but, more importantly, they discovered that their data strongly argues against any kind of
approach that tries to explain possessive constructions in terms of the linear precedence of (a) certain factor(s). Instead, they call for a semantics-based account which assumes that possessives are two separate constructions which differ in meaning (ibid.: 118).

This criterion is fulfilled by the account given by Stefanowitsch (2003). He combines Langacker’s schematic descriptions with an assignment of different semantic roles to the possessor and possessee in the two constructions. Thus, he suggests that the prenominal possessive encodes not only a reference-point relation, but also implies a relation of possession, whereby the possessor phrase is the owner, and the possessee the thing possessed (ibid.: 429). The postnominal possessive is also assumed to have reference-point function, but is said to differ in terms of the semantic roles that it implies. These, Stefanowitsch argues, are those of an entity (the possessee phrase) and another one that is intrinsic to it (the possessor phrase). Intrinsicness is defined not in Langacker’s broad terms, but rather as the more concrete relation “between an entity and the smaller entities which it consists of or the larger entity which it is a part of” (ibid.: 430). Thus, Stefanowitsch’s understanding of intrinsicness conforms to Langacker’s prototype of of, rather than its schema (cf. Figure 8). The specification of different semantic roles for each construction is only a small part of the whole picture, however, because they only provide the default interpretation. More often than not, this interpretation will be overridden by the semantic value of the nominals which take up the possessor and possessee slots. This is possible because Stefanowitsch adopts a conception of constructions based on Goldberg (1995: 73), who assumes a specific kind of inheritance of meaning called the normal mode:

The normal mode is designed to allow for subregularities and exceptions [...]. In the normal mode, information is inherited from dominant nodes transitively as long as that information does not conflict with information specified by nodes lower in the inheritance hierarchy.

In other words, more specific constructions (and thus also specific instances of constructional schemas) encode the same meaning as their more abstract counterparts, provided this meaning does not contradict a meaning implied in
the more specific constructions themselves. If there is such a contradiction, it is
the semantic value of the more concrete expressions which overrides that of the
more abstract construction. Thus, the meaning of a possessive construction
ultimately depends on the meaning of the possessor and the possessee: If they
do not designate any specific kind of relation, the construction will receive the
default interpretation, but if they do, the semantic roles encoded by the
nominals will take precedence. The restrictions on what each possessive
construction can encode result from the fact that certain combinations of
nominals are incompatible with the semantic roles assigned by the construction,
but do not specify any other kind of relation either. Since they do not provide
any semantic content which could override the default interpretation, the
resulting construction is not well-formed.

Stefanowitsch also briefly discusses the area of overlap between the two
possessive constructions, i.e. what seems to determine the choice between a
prenominal and a postnominal possessive when both should be equally
acceptable to encode a certain relation. Based on an analysis of 50 examples of
each of the two constructions, he comes to the conclusion that givenness is not
an important factor, whereas animacy is. According to Stefanowitsch, there is
an almost exclusive preference for animate nominals to precede inanimate
ones. Length (i.e. complexity), finally, is claimed to be secondary to animacy,
because Stefanowitsch’s data showed a strong tendency for animate nominals
to be considerably shorter than non-animate ones.

Does Stefanowitsch’s account finally provide the long-awaited answer to the
question why speakers choose one rather than the other possessive
construction? I would argue that it does not. While it may seem as if the
semantic role constructions he proposes have great explanatory power, at a
closer look they turn out to be both too general and too restrictive to be able to
accurately describe English possessives. Thus, by proposing that the meaning
of the whole construction depends on the semantic roles assumed by the
nominals it consists of, Stefanowitsch says little more than that the relation
encoded by a possessive is dependent on the meaning of its component parts.
This, however, does not explain why there is a variety of relations that English
possessive constructions cannot encode, or indeed why there is usually a preference for one, rather than the other construction. It is also doubtful that a limited number of semantic roles will be enough to account for the whole range of possessive constructions that can be found in actual language use. In many ways, the problems of Stefanowitsch’s account are reminiscent of those of traditional descriptive approaches, which try to explain possessive constructions by means of taxonomies of meaning. What is more, even what little meaning Stefanowitsch does ascribe to the constructions themselves rather than their component parts can easily be shown to be too specific. As he himself admits early on in his paper (ibid.: 423), even the example he gives for a case without overrides, i.e. Kate’s shoes, can, depending on the context, mean something quite different than the proposed default interpretation, i.e. the shoes Kate owns. There are further problems: Thus, topicality was understood only in terms of givenness, but, as should be clear from the description of prior accounts above, this is only one possible way to define the concept. Moreover, it seems somewhat arbitrary to conclude that the length of the possessor phrase does not play an important role simply because it is possible to relate it to animacy. The fact that the average length of animate possessors was found to be shorter than that of inanimate ones does not automatically entail that complexity is always secondary to animacy. Stefanowitsch’s claims about the relative importance of these factors are further weakened by the fact that his data were limited to just one kind of semantic relation between possessor and possessee, namely that of ATTRIBUTE and HOLDER.

Quite clearly, the last word on the distribution of the English possessives hasn’t been spoken yet, and further research is needed to shed additional light on the phenomenon. This paper will try to do just that. Since the main focus is on learners of English, it is of course unrealistic that it will offer any final answers, but hopefully it will still be possible to contribute some valuable new insights to the ongoing discussion. At the very least, the research done here should support and/or call into question previous analyses of the phenomenon, and thereby help to point future research in the right direction.
3.2. _Genetiivin ylivoima_: Possessive constructions in Finnish

In Finnish, possessives are usually encoded by means of the genitive case. In the singular, the genitive invariably takes the form of the suffix \(-n\) (17a), whereas genitive plural can have one of several endings, namely \(-en\), \(-den\)/\(-tten\) or \(-ten\) (17b), depending on the kind of stem it is attached to.

(17) a. banaanin, puun, hevosen
    ‘of the banana’, ‘of the tree’, ‘of the horse’

b. banaanien, puiden ~ puitten, hevosten
    ‘of the bananas’, ‘of the trees’, ‘of the horses’

A typically Finnish phenomenon is the so-called possessive suffix. Possessive suffixes are endings that are attached to the head noun if it is combined with a pronominal possessor, i.e. they are suffixes that specifically mark the possessee. The form of the possessive suffix depends on person and number of the pronoun; for the first person singular, for example, the ending is \(-ni\) (18a). In written language, the possessive suffix is obligatory, but the pronominal possessor can be omitted (18b), whereas in spoken language, the situation is usually reversed (18c).

(18) a. minu-n kirja-ni
    I-GEN book-1POS
    ‘my book’

b. kirjani

c. mun kirja

Apart from the genitive, the only other means to express a possessive relation (in the broad sense of the word) are clausal rather than nominal. Thus, the verbs _omistaa_ ‘own, possess’ and _kuulua_ ‘belong to’ both designate possession. Interestingly, Finnish does not have a verb which corresponds to English _have_, but uses a specific construction for this purpose, often referred to as omistuslause, literally ‘possession clause’. Depending on whether the possessor is animate or inanimate, a different local case is employed: External local case (adessive) is used for animate possessors (19a), internal local case (inessive) for inanimate ones (19b; examples from Karalainen & Sulkala 1992).
(19) a. Tytöllä on koira.
girl-ADE be-3SG dog
'The girl has a dog'

b. Auto:ssa on uudet renkaat.
car-INE be-3SG new-PL wheel-PL
'The car has new wheels'

The genitive is thus basically the only structure available to encode a possessive relation within a nominal; it is, as the Finnish title of this section suggests, in a position of uncontested supremacy. Overall, its function is a lot broader than that of English POSS, which is also often referred to as genitive (cf. e.g. Nikiforidou 1991; Rosenbach 2001, 2002, 2003; Hinrichs & Szmrecsanyi 2007). Thus, the Finnish genitive can also occur as object (20a), subject (20b), complement of a postposition (20c) or as an adverbial expressing amount, size or duration (20d; often referred to as OSMA, cf. Hakulinen et al. 2004). Even when used to modify a nominal, the Finnish genitive has wider applicability than English possessives, and can correspond e.g. to an adjective or preposition phrase in English (21) (cf. also Karlsson 1999: 95-96).

(20) a. Ost-i-n mielenkiintoise-n kirja-n.
buy-IMPF-1SG interesting-GEN book-GEN
'I bought an interesting book'

b. Sinu-n täyty-y lähteä.
you-GEN must-3SG leave
'You have to leave'

c. talo-n taka-na
house-GEN behind-ESS
'behind the house'

6 Only in a very limited number of cases is it possible to substitute local cases for the genitive; the local case is then usually more restricted in meaning, cf. the following example (Hakulinen et al. 2004: 567):

ystävä-n kuva ~ kuva ystävä-stä
friend-GEN picture ~ picture friend-ELA
'a friend’s picture’ ‘the picture of (=showing) a friend'

What is more, when such a rough paraphrase relationship exists, Finnish often uses the genitive when in English one would have to express the same relation by other means, such as with a preposition (ibid.):

keskeyttämise-n syy ~ syy keskeyttämise-en
interruption-GEN reason ~ reason interruption-ILL
‘the reason for interrupting’
d. He asu-i-vat Helsingi-ssä vuode-n.
they live-IMPF-3PL Helsinki-GEN year-GEN
‘They lived in Helsinki for a year’

(21) a. Suome-n lippu
Finland-GEN flag
‘the Finnish flag’

b. saksa-n kieli
German-GEN language
‘the German language’

c. Rovanieme-n juna
Rovaniemi-GEN train
‘the train to Rovaniemi’

Out of all the different functions the Finnish genitive can have, its use as a modifier within a nominal is by far the most common one: Hakulinen et al. (2004: 1184) report that a total of 67.5% of the genitives found in their data were of this sort, and Jaakola (2004: 278) mentions similar numbers, stating that almost three quarters of the genitives from her main source occurred as part of a nominal, i.e. as what she calls N-genitive.

I will follow Jaakola in using this term to refer to all genitives that form part of a nominal, because not all of these can reasonably be considered possessive. Thus, Finnish N-genitives can be divided into two groups, called kuvailugenetiivi (‘descriptive genitive’) and tarkennegenetiivi (‘specifying genitive’) (cf. Jokinen 1988: 360-361). Of these two, only the specifying genitive is more or less equivalent to the English possessives; the descriptive genitive, on the other hand, does not so much establish a relation with the head noun (in the sense of the reference-point model), but defines it in terms of quality or quantity. It is therefore closer in meaning and syntactic behaviour to English compounds (22a) or non-possessive of-constructions such as the binomial (22b), or certain kinds of of-apposition (22c,d; examples from Jaakola 2004: 138).

(22) a. euro-n kolikko
euro-GEN coin
‘euro coin’

b. kunnia-n mies
honour-GEN man
‘a man of honour’
If one wants to apply the concept of nominal possessive constructions to Finnish, then the so-called tarkennegenetiivi is the closest approximation. This term is still very broadly defined, and can refer to a wide range of different relations. Jaakola (ibid.: 80-134) divides this kind of genitive into several subgroups, depending on the type of possessor, possessee and/or the relation between them. This classification is reproduced in English in (23)\(^7\). While it is somewhat arbitrary in the sense that the criteria for postulating a category vary, it still gives a good overview of the kind of (possessive) relations the Finnish genitive can encode. What might be important to note is that my understanding of possessive genitives is a lot wider than the one proposed by Jaakola; while I would consider all of the examples in (23) possessive (cf. the broad definition used for English above), Jaakola (ibid.: 82-89) uses the term possessive only for genitives that encode a relation close to the prototype of possession, i.e. the category given in (23a, i). A slightly more generous definition of possessives is employed by Hakulinen et al. (2004: 567): In their examples of possessives, they also list genitives of the kind given in (23a, iii).

(23) a. human as possessor
   i.  object that can be owned as possessee  
      e.g. Eeron levy ‘Eero's CD’
   ii. action or outcome of an action as possessee  
      e.g. Käthe Kollwitzin taide ‘Käthe Kollwitz’s art’
   iii. body part or attribute as possessee  
      e.g. jättiläisen ainoa silmä ‘the giant’s only eye’
   iv. human as possessee  
      e.g. Ellan äiti ‘Ella’s mother’

\(^7\) Note that the use of possessor and possessee here corresponds to my broad understanding of these terms, i.e. as the two nominals that form part of a possessive construction, irrespective of whether the relation between them is one of possession. Jaakola refers to possessor and possessee as kiintopiste and muuttuja, respectively, which are equivalent to the CG terms landmark and trajector.
b. location as possessor
e.g. pääkaupungin lehti ‘the capital’s newspaper’

c. time as possessor
e.g. kesäkuun 23. päivä ‘the 23rd (day) of June’

d. part-whole genitive
e.g. filmin loppupuoli ‘the final half of the film’

e. nominalisation as possessee
e.g. kahvin juominen ‘the drinking of coffee’

Looking at this list of different subgroups of genitive constructions, the question arises what it is that they all have in common. When reviewing the literature on the subject, it becomes obvious that this is as yet an unanswered question. The only thing that they seem to agree on is that Finnish possessive genitives cannot be reduced to just one meaning or function, not even a central one. Hakulinen et al. (2004: 566) state that the meaning of the genitive relation is determined by that of the individual nominals. Jaakola (2004: 171) takes a different position. She notes that Langacker’s reference-point model is not an appropriate definition for Finnish genitives, because it does not suffice to distinguish it from other linguistic structures. She also deems it impossible to derive the different types of genitives from one, or even several kinds of more basic relations. In her opinion, the Finnish N-genitive is more adequately described as a set of clusters of meaning linked through family resemblances: While there is no one feature that all types of N-genitive or even possessive genitive share, and some may even have very little to do with others, the whole category is nonetheless held together by a “network of similarities overlapping and criss-crossing” (Wittgenstein 1978: 32). In other words, the Finnish genitive is seen as inherently polysemous. Jaakola (2004: 277) does mention two subgroups which she considers prototypical, however. These are what she calls “henkilöviitteinen” (literally ‘person-referring’) genitives, which conform to the whole category (23a), and the part-whole genitive (23d). Hakulinen et al. (2004: 566-567), on the other hand, attribute prototype status to alienable and inalienable possession.

Both of these suggestions for the prototypes of Finnish genitives have obvious parallels with the ones that were put forward for English possessives. The use of the plural is important here: Interestingly, despite the fact that they each
encompass slightly different types of genitives, both Jaakola’s and Hakulinen et al.’s notion of the prototype overlap partly with that proposed for the English prenominal, and partly with that for the English postnominal possessive. Thus, alienable possession corresponds to the prototype of the prenominal possessive as defined by Taylor (cf. sections 2.3. and 3.1.1. above), and inalienable possession matches Langacker’s sketching of the prototypical meaning of *of* (cf. section 3.1.2.). Similarly, three of the four subgroups of genitives with human possessors (i.e. all but 23a, ii) named by Jaakola conform to the three prototypical meanings of prenominal possessives recognised by Langacker, i.e. possession, kinship relations and (body) part-whole relations. Jaakola’s part-whole genitives, on the other hand, seem to coincide with the prototype defined for *of*-constructions, i.e. the intrinsic relation between a larger whole and its parts. These parallels between the prototypical values of the Finnish genitive and the two English possessives have important implications: Even without aiming at a definitive answer to the question what the semantic pole of the Finnish possessive genitive might be, and how great its similarities to English possessives are, one conclusion that seems to be beyond doubt is that one (polysemous) construction in Finnish corresponds to two different ones in English.

What does this situation mean for the problems Finnish learners might face with respect to possessive constructions in English, then? It is certainly to be expected that Finnish speakers will have difficulties in using English possessives. This is likely because making a distinction that does not exist in the L1 means having to overcome a cognitive habit, i.e. re-thinking one’s patterns of thinking for speaking (cf. section 2.2.2.). The same could of course be said to apply to the opposite situation as well, but certainly to a lesser degree: It will always be more difficult to acquire a new category than to accept that two familiar categories are merged into one in another language, or, in the words of Cadierno (2008: 266), “it will be harder to move from a less discriminating L1 into a more discriminating L2 than the reverse”. The kind of difficulty that is most likely to occur in this situation is that learners will struggle with discriminating between the two L2 structures, and that one of the two will therefore be underrepresented, while the other will be used too extensively.
Presumably, the structure that will get overused will be the one closer to the only construction available in the mother tongue. In the case of possessives, L1 Finnish and L2 English, this more similar construction is quite clearly the prenominal possessive.

It would prove difficult to put this equation down to greater similarities in meaning, since there is of course no final answer to the question of what conceptualisations the different possessive constructions represent. Even so, Finnish genitive constructions are closer to the English prenominal possessive in two important respects: First, Finnish -n and English POSS share a number of characteristics at the phonological pole. They both usually take the shape of a single consonant, and are attached directly to the possessor nominal, so that together they form one phonological unit. Second, they are similar with regard to construal in at least one regard, namely in terms of dynamicity. The alignment of possessor and possessee in that specific order means that both with regards to the Finnish genitive and the English prenominal possessive, the concept encoded by the possessor will enter the mind of the speaker (and/or listener) first; in the case of the English postnominal possessive, this order is reversed. This difference in the enfolding of the overall conceptualisation is meaningful even with regards to Finnish, because Finnish speakers do in principle have the option to follow a different cognitive route, even if that means encoding the possessive relation by other means than within a nominal. When they do choose a nominal possessive construction, however, they invariably conceptualise the situation by focusing on the possessor first, and locating the possessee in relation to it. Since this mental path is paralleled by the English prenominal possessive, the two constructions can be said to involve a similar construal process. Due to the obvious resemblances in both form and conceptualisation between Finnish genitive and English prenominal possessive, there is thus good reason to expect that Finnish learners of English will lean towards using the prenominal construction, and even choose it more frequently than a native speaker of English would. It will be interesting to investigate whether this hypothesis is indeed true, and to determine when Finnish speakers resort to the postnominal possessive, even though it is quite clearly a lot further removed from the possessive construction familiar to them from their L1.
3.3. *Dem Genitiv sein Tod*: Possessive constructions in German

Whereas Finnish only has one type of possessive construction, in German, just like in English, there are several ways to express possessive relations within a nominal. The most obvious one is perhaps the genitive.

The most typical German genitive marker is -(e)s, which occurs both with proper nouns and masculine and neuter common nouns. It can attach to both the head noun (24a) and the definite article (in combination with the head noun; 24b). With feminine common nouns, the genitive takes a different form: It is only visible in the article, and manifests itself in the ending -er, as in *der, dieser* or *einer* (cf. 24c). Finally, there are of course also possessive pronouns (24d).

(24) a. Johns *Buch über Possessivkonstruktionen, Mutter*'s *Lieblingstee*
    b. die *Stimme des Lehrers* (m), das *Dach des Hauses* (n)
    c. das *Projekt einer Freundin* (f), die dunkle Seite der *Macht* (f)
    d. mein *Schatz, seine Untreue, unser Problem*

As can be seen from the examples given in (24), the genitive can be used either in prenominal (24a) or in postnominal position (24b). The two positions are not freely interchangeable, but come with their own regularities and restrictions. The prenominal genitive construction is thus largely limited to proper names as well as certain appellatives (cf. 24a). Common nouns can in principle occur as prenominal genitives, but such expressions are extremely rare in writing and practically non-existent in speech. Masculine and neuter nouns are more acceptable than feminine nouns in this position (cf. 25a,b); the latter seem to be permitted only in very rare cases, and are strongly marked even then (25c; example from Kunkel-Razum & Eisenberg 2005: 835). Moreover, the prenominal genitive is apparently more readily accepted with animate nouns (cf. 25a).\(^8\)

(25) a. des Lehrers Stimme, des Mädchens *Kleid, **des Hauses Dach*
    b. der Freundin Projekt, *der Tür *Farbe*
    c. der sächsischen Hauptstadt bekanntestes Wahrzeichen

\(^8\) For a discussion of further restrictions concerning the prenominal genitive, cf. Haider (1988).
Theoretically, the postnominal genitive is a lot less restricted than the prenominal, since it can occur with almost all types of nouns (cf. 24b,c); however, it does conflict with pronominal possessors (26a), and is highly atypical in combination with proper names (26b). Moreover, in actual practice, it is basically just as highly restricted as the prenominal genitive, because the genitive as a whole has become very rare in spoken German.

b. ??das Buch Johns, ??der Lieblingstee Mutters

The decline of the genitive is particularly noticeable in German dialects. It has disappeared from most dialectal varieties (Shrier 1965: 437; Koß 1983: 1242; Schirmunski 2010: 496). There are only a small number of dialects which still retain certain forms of the genitive, and the types of genitive that are retained are limited as well; the most common surviving genitive constructions are listed in Schirmunski (ibid.: 498-500). What is more, even in standard German, the genitive is not the unmarked default case anymore. It has become associated with a formal register (Barbour & Stevenson 1990: 161).

Historically speaking, the genitive used to have much broader applicability than it does today. Its former productivity is evident from certain (now largely isolated) occurrences of the genitive as an object (27a), complement of a preposition (27b), adverb (27c), or in some idiomatic expressions (27d). In the case of many verbs and prepositions that can still govern the genitive, modern spoken German does exhibit a very strong preference for the dative, however (27a’,b’).

(27) a. Wessen gedenken wir am 26. Dezember?
   a’. Wem gedenken wir am 26. Dezember?
   b. Wegen des Regens musste er zu Hause bleiben.
   b’. Wegen dem Regen musste er zu Hause bleiben.
   c. montags, abends, links, allerdings
   d. sich des Lebens freuen

This tendency to replace the genitive with the dative does not only apply in combination with verbs or prepositions, but is in fact characteristic for nominal genitives as well. The title of the current section of this paper is an instance of
such a dative replacement within a nominal predication. It is taken from a popular book by Sick (2004), called Der Dativ ist dem Genitiv sein Tod ‘the dative is the death of the genitive’, which is of course in itself a reference to the fact that the dative is taking over a lot of the former functions of the genitive. Sick takes a strongly prescriptive stance towards this phenomenon, and argues that only the original genitive is correct usage. From the perspective of modern linguistics, this position is of course untenable: It is just in formal standard German that the preferred way to put this would be Der Dativ ist der Tod des Genitivs, i.e. a postnominal genitive construction.

There are actually two kinds of dative constructions that are proving rather deadly for the German genitive. One is precisely the kind of construction used as a humorous example by Sick; the other one involves the use of the preposition von. The former type of construction is usually called possessive dative (cf. Koß 1983: 1245; Kunkel-Razum & Eisenberg 2005: 834; Schirmunski 2010: 496). It consists of a noun in the dative case (the possessor), followed by a third person possessive pronoun and an unmarked noun (the possessee). The possessive pronoun agrees in both gender and number with the possessee (28a), while its basic form depends on the gender of the possessor (28b).

(28) a. dem Mann sein Hut (m) / sein Hemd (n) / seine Hose (f) / seine Schuhe (pl)
   b. dem Mann sein (m) / dem Kind sein (n) / der Frau ihr (f) Hund

The possessive dative is restricted in three respects: It does not occur with first or second person possessors (29a), is incompatible with plural possessors (29b) and very restricted in use with inanimate possessors (29c).

(29) a. *mir mein / *dir dein / *uns unser / *euch euer Haus
   b. *der Männer ihre Bärte
   c. ??dem Haus sein Dach

Possessive datives are a common feature of German dialects (cf. Shrier 1965: 437; Koß 1983: 1242; Schirmunski 2010: 496), but despite their wide-spread use, they have not made their way into the standard language. Possessive
genitives are still considered highly colloquial (Drosdowski 1984: 600), informal (Taylor 1996: 14) or non-standard (Barbour & Stevenson 1990: 161).

The second type of dative construction used in place of a genitive differs from the possessive dative in several aspects. One important difference lies in the alignment of possessor and possessee. In a von-possessive, the possessee is mentioned first, and is followed by the preposition von and the possessor nominal in the dative (30). Inanimate possessors are not excluded (30b), and pronominal possessors seem to be sanctioned by the construction as well, even if they are rather untypical instantiations (30c). This means that possessives with von are much less limited in their distribution than dative possessives are.

(30) a. das Haus von meinem Freund
   b. die Spitze vom Eisberg
   c. das Haus von mir

This larger freedom of use does not only hold true on the level of the linguistic structures that can fill the slots of the constructional schema, but also when it comes to stylistic considerations: Just like the possessive dative, von-possessives play an important role in German dialects (Shrier 1965; Koß 1983: 1242; Schirmunski 2010: 496), but what is more, they are also frequent in everyday spoken language and widely accepted in standard German (Barbour & Stevenson 1990: 161). There are even some situations when a von-construction is preferred to the genitive in more formal, written German as well, such as when the possessor nominal does not contain an article (31a; cf. Helbig 2002: 500), and sometimes the von-possessive even constitutes the only grammatically well-formed option. This is the case for example when the possessor is accompanied by an uninflected numeral (31b; cf. Drosdowski 1984: 600).

(31) a. der Einfluss von Wind und Wetter
   b. der Vater von fünf Söhnen

Before moving on to a discussion of the differences in meaning between the different German possessive constructions, and the question why several such constructions even exist, it will be necessary to specify which ones actually
count as possessive within the framework of this paper. I have already referred to both expressions of the type \([X\text{-DAT} \text{sein/ihr Y}]\) and \([Y \text{ von } X\text{-DAT}]\) as possessives, but have said nothing as yet about whether all instances of nominal genitives fall into the category of possessive constructions too.

The answer is no: Just as was the case in English and Finnish, there are certain constructions in German that do not seem to fit the category of possessives, even though they look similar and might well be affiliated with them at a highly schematic level. The kinds of genitives that I consider non-possessive are more or less equivalent to the ones that were excluded in the other two languages as well. There are a total of three types of genitive relations that do not qualify. These are the so-called genitivus qualitatis, genitivus explicativus, and genitivus partitivus (Drosdowski 1984: 598-60; Kunkel-Razum & Eisenberg 2005: 838-839; cf. also Helbig 2002: 497-498). Examples are given in (32a-c). Note that there is an easy way to test whether a genitive is possessive: If the modifying structure can be replaced by a possessive pronoun, we can speak of a possessive construction (cf. Kunkel-Razum & Eisenberg 2005: 833). This substitution test works for the possessive dative (cf. 28), the von-possessive (cf. 30) and for the genitives in (24) and (25), for example, but does not render acceptable results for the three types of genitives that I excluded from the category of possessive constructions. While the expressions in (32a'-c') are well-formed, they cannot function as paraphrases for the genitive constructions given in (32a-c).

\[(32)\]

\(a. \) genitivus qualitatis
\(\text{e.g. } \textit{ein Becher edlen Goldes} \sim \textit{aus edlem Gold}\)
\(\text{‘a goblet (made) of precious gold’}\)
\(\text{a’}. \) *sein Becher

\(b. \) genitivus explicativus\(^9\)
\(\text{e.g. } \textit{das Rätsel des Urknalls} \sim \textit{Urknnall} \sim \textit{vom Urknall}\)
\(\text{‘the mystery of the big bang’}\)
\(\text{b’}. \) *sein Rätsel

---

\(^9\) There are in fact also explicative von-constructions without a genitival counterpart, such as \(\textit{ein Hune von einem Mann}\) (Kunkel-Razum & Eisenberg 2005: 839). These correspond to the English binominal of-construction (c.f. a giant of a man).
c. genitivus partitivus
   e.g. *die Hälfte des Kuchens ~ vom Kuchen, eine Tasse heißen
   Kaffees ~ heißer Kaffee
   ‘half of the cake’, ‘a cup of hot coffee’
   c’. *seine Hälfte, *seine Tasse

Apart from illustrating what these three types of German genitives look like, and showing that they do not allow substitution with possessive pronouns as possessive genitives would, the list in (32) also serves two other important purposes. First, it makes it possible to compare German and English. From the translations of the German expressions, one can see that the three German non-possessive genitives correspond to non-possessive of-constructions in English, namely to of-appositions in the case of the genitive of quality and the explicative genitive (32a,b), and to partitives and pseudo-partitives in the case of the partitive genitive (32c). Second, it becomes obvious that these types of genitive can also be expressed by other means, such as von-phrases (32b,c) or other prepositional phrases (32a), or simple apposition (32b,c). Of these different variants, the genitive is both the least natural and the least common in modern German; usually, the alternative phrasings are preferred. Thus, in German, the only truly productive kind of genitive is actually the possessive one.

Once again, the term possessive is understood in a wide sense here: I do not take it to refer to prototypical possession only, but to various other types of relations as well. Seen in this light, German possessive genitives constitute a complex category (c.f. the twelve types of nominal genitives listed by Helbig 2002: 497-498, of which only four are not possessive), and yet CG predicts that there has to be some kind of schematic meaning and/or prototype that holds the category together, and, more importantly, serves to distinguish it from other kinds of possessive constructions.

This brings us back to the comparison of the different types of German possessive constructions announced earlier. How do these four types (i.e. the prenominal genitive, the postnominal genitive, the possessive dative and the possessive von-construction) differ in terms of how they construe the relation between possessor and possessee? Unfortunately, this seems to be a question
that has not been given much serious thought yet. To my knowledge, there do not exist any analyses of German possessives that consider this phenomenon from a Cognitive Linguistic perspective, and recognise that different constructional schemas are likely to represent subtle differences in meaning. Instead, accounts of German possessives usually stress that the constructions are similar or even equivalent in meaning. Thus, Koß (1983: 1242), for example, states that the possessive dative and the \textit{von}-possessive are nothing but “verschiedene ausdrucksseitige Mittel [...], deren Funktion aber identisch ist [formally different expressions, whose function is, however, identical]”. The only kinds of differences that are commonly acknowledged relate to style and register (formal versus informal), variety (non-standard versus standard), or the medium of communication (written versus spoken language). (For examples of such differentiations, refer to the characterisations of the possessive dative and the \textit{von}-construction given above.)

If I were to begin to investigate the differences in construal between the four types of German possessive constructions, I could probably fill enough pages to write a second thesis just about that topic. While that would certainly be an interesting task, it is not the one I am trying to accomplish here, and would thus go well beyond the scope of this paper. Thus, I am afraid that all that can reasonably be said about semantic differences between the German possessives at this point will have to remain very brief and largely speculative.

One thing that is striking about the distribution of the four possessive constructions in German is that there seems to be a relatively strict division of labour between them, in the sense that the genitive is largely confined to writing, while there is a strong preference for the two dative constructions in spoken communication. This separation of functions could be a result of the genitive, as the structure with the longer-standing tradition, being perceived as old-fashioned and thus too formal in style, and therefore unfitting for spoken language, which tends to be much more informal than its written counterpart. If the genitive is relegated to the domain of written language, then it leaves behind a gap that needs to be filled by another structure, which is where the possessive dative constructions come in. This explanation can also account for
the fact that genitives are still retained in standard German, whereas they have basically disappeared from non-standard varieties: Standard varieties are developed and re-established primarily in the form of written language, while dialects usually lack this written tradition and flourish mostly in spoken communication.  

Even if we accept that speakers might want to maintain more than one linguistic structure to encode the same kind of situation in order to be able to adjust their language to the level of formality appropriate to the setting, the question about why there are four types of possessive constructions in German is still not resolved. The really interesting question is why German allows for both a prenominal and a postnominal variant with both genitive and dative possessive constructions. Keizer (2009) suggests that speakers might need this choice between two possessives with reverse order of possessor and possessee so that they can make cognitive-pragmatic distinctions in addition to morphosyntactic (and, I would add, stylistic) ones. She proposes that one such additional distinction could be the one between activated (or topical) concepts, and ones that were only just introduced into the discourse. This analysis seems quite plausible, and would suggest that a prenominal and a postnominal variant each are required so that the possessive relation can be construed differently in terms of both dynamicity and the relative prominence of possessor and possessee.

Given the research questions at the heart of paper, what is even more important to understand than the reasons behind the choice for a certain possessive construction in German is how these relate to the options available in English. Again, trying to answer this question in terms of differences in meaning will probably prove to be an insurmountable task at this stage, since there is a lot of disagreement about the meaning and function of English possessives, and very little information overall on their German counterparts. Certain things that have

10 Viewed from a diachronic perspective, the current situation of German possessives is quite clearly an indication for an ongoing change, whereby the genitive is losing more and more ground, and is gradually being replaced by other constructions. This is a different, but equally valid explanation for the fact that genitives are found predominantly in written German. Since changes usually start in spoken language, whereas written language tends to be quite conservative, it is to be expected that such a change in progress would be evident in spoken German, but would not necessarily have made its way into the written standard yet.
been said about the German possessive genitive (in the wider sense of the word) do exhibit clear parallels to characterisations that were suggested for English possessive constructions, but they do not really point towards greater similarities with one rather than the other English possessive. For example, Eisenberg (2006: 248-249) states that possessives (understood in a relatively narrow sense) have been said to constitute the core meanings of the German genitive, and that the one function all genitival modifiers share is the fact that they make it possible to identify the referent. These observations are reminiscent of the prototype and the schema characterisations proposed for English possessives, but as was shown above, these prove to be insufficient to make a clear enough distinction between the prenominal and the postnominal constructions. Thus, it seems that semantic considerations of this nature will not make it possible to come up with a hypothesis about which English possessive construction German speakers are likely to prefer.

In his book on possessives in English, Taylor (1996: 351) draws a direct comparison between the meaning of the English prenominal possessive and German possessive genitives. He puts forward the idea that they differ in terms of how objectively the possessive relation is construed: In his opinion, German expressions like *das Auto des Nachbarn* construe the encoded situation objectively, i.e. according to some real and tangible relationship between possessor and possessee, whereas speakers of English conceptualise a subjective path between the two entities when they use an expression such as *the neighbour's car* (cf. section 3.1.1.). Whether this is indeed the case is once again a question that is probably worthy of its own paper, and it will thus be impossible to determine whether Taylor’s suggestion is correct in the limited space available here. However, my gut instinct as a native speaker of German tells me that Taylor is on rather thin ice with this proposal. I doubt that the various relations that the German possessive genitive can encode are all clearly more objective than the ones represented by English prenominal possessive constructions. One would certainly need a lot of data to prove an assumption like this – data which Taylor quite clearly does not have. His observation about the differences in construal between the German genitive and English POSS is limited to a short comment, and the only evidence that is given to substantiate
the claim is the one contrastive example cited above, as well as Taylor’s word. This surprising lack of evidence is also noted by Francis (2000: 98), who also points to a number of additional problems with Taylor’s proposal. All in all, it is quite clear that Taylor’s suggestion about German and English differing in terms of how objectively or subjectively the possessive relationship is construed cannot be taken seriously at this stage. There is as of yet simply not enough substantial evidence to say anything definitive about the semantic differences between German and English possessive constructions.

As was the case with Finnish, we will have to resort to an area that we can make more reliable judgements about to be able to draw conclusions about German speakers’ use of English possessives. Again, the clearest correspondences between the two languages are of a largely formal, rather than a purely semantic nature. Trying to determine which type of English possessive might feel more familiar to German learners of English is of course considerably more difficult than it was to hypothesise about the preferences of Finnish learners, since German does in principle have all the distinctions that English has: Possessives can be both prenominal and postnominal, and can be expressed by either synthetic or analytic means. These obvious parallels between German and English could be taken as evidence that there is such great overlap between German and English possessive constructions that German learners should not face any real difficulties at all. However, I would argue that this seemingly straightforward conclusion is in fact misleading, and that it is crucial to watch out for the devil lurking in the details. When taking a closer look at the parallels and differences between German and English possessive constructions, it turns out that there are reasons to believe that German speakers would show clear preferences for one type of English possessives, namely the postnominal construction. One aspect that should certainly be taken into consideration is the restrictedness of the German prenominal variants as compared with their postnominal counterparts. As was pointed out above, the prenominal genitive is highly limited in terms of what kind of nouns it can combine with, and the same could be said about the possessive dative, since it only allows animate entities and third person possessors in the possessor slot. German can thus be said to show a strong tendency towards
using postnominal constructions, which entails that German speakers will usually conceptualise the possessee before the possessor. It seems likely that this preference for a certain dynamic construal process will carry over into English as well, and that German learners will thus tend to choose the English postnominal possessive over its prenominal counterpart. Another argument that supports this conclusion is the fact that one of the two German prenominal possessives, namely the possessive dative, does not only share similarities with the English prenominal construction, but with the postnominal one as well. Both express the possessive relation analytically rather than synthetically, i.e. by means of whole words and word order and rather than through bound morphemes.

To sum up, while the situation might not be as clear as it is with regards to Finnish, there is good reason to suppose that German learners will favour the English postnominal possessive construction. However, it will be necessary to take a look at actual language data to test whether this assumption does indeed hold true. Another intriguing question that requires further investigation is whether German speakers will perform better at choosing the appropriate English possessive construction than Finnish learners. Following the two hypotheses that it should be more difficult to move from a less discriminating language into a more discriminating one, and that language distance is likely to be a complicating factor in L2 acquisition, Finnish learners of English can be expected to face a greater challenge with regards to possessive constructions than learners with a German language background. As far as German learners are concerned, it will also be interesting to note whether there is a difference in their preference for one or the other possessive construction in English depending on whether they use written and spoken language. One might suspect that German learners will retain the different preference structures for speech and writing found in their mother tongue and thus apply them in their use of English as well. Hopefully, the research project described throughout the next few chapters will provide some answers to these open questions.
4. Data and methodology

This and the following two chapters will be devoted to the research project underlying my thesis, and can thus be said to form its practical part. While chapters 5 and 6 will focus on the presentation and discussion of the results I found, the present chapter is meant to provide an outline of the project itself, i.e. of the way it was conducted and the kind of data and parameters of analysis that it involves. Finally, there will also be a section on the limitations inherent in the research design, as well as some problems that I encountered in the course of the project.

4.1. Methods of analysis

The research project is divided into two parts, a quantitative and a qualitative one. While the quantitative analysis is wider in scope than the qualitative one in the sense that it spans a much larger amount of data, the qualitative part constitutes a far more in-depth analysis of the possessive constructions it examines. It thus exceeds the quantitative analysis in terms of the time and space devoted to it during the research process as well as in the writing phase of this study, even though it involves a much smaller sample of data. In the following, I will briefly describe the way the two types of analysis were carried out, and also refer to the kinds of questions each was intended to answer.

4.1.1. Quantitative analysis

The quantitative research done as part of this project essentially measures and compares the relative frequency of the two possessive constructions, as used by English native speakers as well as Finnish and German learners of English. In addition, a distinction is made between the use of possessives in spoken and in written language.

The main goal of the quantitative analysis is to determine whether German and Finnish speakers’ use of English possessives exhibits CLI effects. Within this
general research interest, a number of more concrete questions can be defined. The resulting complex of research questions looks as follows:

I. Does the native language of German and Finnish learners seem to have an influence on their choice of possessive construction in English?

1. How much does the distribution of pre- and postnominal possessives in the language of the two learner groups differ from the patterns found in native English?
   a. Do Finnish learners of English show a tendency to overuse the prenominal possessive, i.e. the type of possessive construction familiar to them from their L1?
   b. Do German learners prefer the English postnominal possessive, as one might expect on the basis of how possessive relations are usually expressed in German?

2. How great is the difference in the use of pre- and postnominal possessives when comparing German and Finnish learners to each other?
   a. Which group of learners exhibits a use of possessive constructions that is more similar to that of native speakers of English, and thus seems to perform better at emulating native language use?
   b. Do the results support the hypotheses that language distance is an inhibiting factor in L2 acquisition, and that moving from a less into a more discriminating language will be more challenging than the reverse?

3. What is the role of possible differences between written and spoken language in learners’ use of English possessives?
   a. Does it hold true that German speakers use the prenominal possessive more in written language?
   b. Does the distribution of pre- and postnominal possessives remain relatively stable as far as Finnish learners of English are concerned?

With these research questions in mind, a total of four corpora were searched for possessive constructions to find both a sufficient number of examples of both written and spoken language for all three learner groups. This search for data required two steps to ensure that the final results were indeed all instances of possessives: First, depending on the corpus in question, a certain query was used to extract all potential possessive constructions, i.e. all those constructions
that conform to the structures \([(X \text{ POSS}) \ Y]\) and \([Y \text{ of } X]\), respectively. Then, these first rough results were sorted through manually, and all the constructions that did not qualify as possessives in my understanding of the term (such as possessive compounds and several types of \textit{of}-constructions) were excluded. (A more detailed description of this selection process is given in section 4.1.2. below.) To obtain comparable figures, the total number of occurrences isolated this way was then standardised to reflect the token frequency in a 100 000 words. The resulting frequencies were compared both as such and in the form of ratios. In line with the research questions listed above, three kinds of comparisons were made: The constructions produced by the two groups of learners were contrasted with those used by native speakers; the distribution patterns exhibited by Finnish and German speakers were compared to each other; and within each learner group, the use of possessives in spoken language was checked against written language use.

4.1.2. Qualitative analysis

While the quantitative part of the research focuses on the question whether there is evidence for language transfer in German and Finnish speakers’ use of English possessives, the qualitative analysis is guided by a different aim. Thus, its main goal is to provide a new perspective on the parameters behind the distribution of possessive construction in English. By analysing learner language and determining which factors seem to determine the choices made by non-native speakers of English, I hope to shed some additional light on the factors which appear to be highly salient, and to point out which parameters do not seem to play an important role.

To be more precise, the qualitative part of my study revolves around the following set of research questions:

II. What does German and Finnish speakers’ choice of possessive construction reveal about the factors determining the distribution of pre- and postnominal possessive in English?
1. What are the parameters that seem to lead Finnish and German learners of English to choose a certain possessive construction when it is likely that L1 transfer is not an issue?
   a. Which factors are particularly salient in Finnish speakers' choice for a postnominal possessive?
   b. Which factors co-occur only with the prenominal possessive as used by German speakers?

2. Which factors seem to play such a prominent role in the distribution of English possessives that even non-native speakers of English recognise and adopt them?
   a. How closely do the factors identified for learner language correspond to the ones that seem to determine native speakers' choice for a certain possessive?
   b. Are there any parameters that are apparently not recognised by Finnish and German learners of English, but might still be relevant for the choices made by native speakers?

Answering these research questions is attempted by means of an in-depth analysis of a subsample of 25 prenominal and 25 postnominal constructions per group of speakers and medium of communication, i.e. a total of 300 examples. These examples were analysed in the context of the entire speech event (or as much of it as was available) with regard to a total of nine parameters, which are described in detail in section 4.3. below.

At this point it might be important to point out that a good part of what I have referred to here as qualitative research does in fact involve quantification as well. I will, on the basis of my analysis of the examples in question, try to make generalisations about the relative importance or insignificance of certain factors. This part of the research is qualitative only in so far as it involves decisions about how to classify data that cannot be arrived at on the basis of the linguistic structures alone, but require an evaluation of their meaning or status in the context of the speech event as a whole. A number of the parameters discussed in this study could in principle be analysed in isolation, too, but will instead be dealt with as part of the qualitative research because they might interact with other factors. Since I would like to point out such interactions where possible and relevant, it makes sense to examine and discuss all nine parameters together. There is, however, also a truly qualitative element to this part of the research project, in the sense that I will single out certain particularly interesting
constructions for separate discussion. These examples will then be analysed in greater detail to explain what might have been the speaker’s motives behind choosing the possessive construction in question. This is also where I will try to show how the different factors interact, and which seem to take precedence over others.

4.2. Compiling the data

As was mentioned above, the practical research done as part of this thesis comprises data from a total of four different corpora. What is more, the relevant examples were obtained not only by means of automatic extraction through a certain query, but had to be sorted manually as well. Finally, a smaller subsample had to be selected for detailed analysis. In this section, I will describe these data selection processes, so as to lay open the kind of decisions that lie behind them, and thus make clear how I arrived at my results.

4.2.1. Choosing the corpora

From the earliest beginnings of my work on this project it has been clear that I would use corpora to obtain the data I needed. Corpora lend themselves well to the kind of research done here for several reasons: First, they comprise enough data and span a large enough number of speakers to be able to be make generalisations about dominant patterns of language use. Second, they contain language data that was not elicited specifically for a certain purpose, but is authentic in the sense of having occurred in natural language use. Third, they make it possible to extract the relevant examples relatively quickly, because they usually offer a number of useful search tools. Finally, using available corpora makes it possible to focus on the more crucial aspects of a research project, such as analysis and discussion, because it frees up time which would otherwise have had to be spent on data collection.
While there was thus little doubt that working with corpora would be the most sensible choice, finding the right ones proved to be a difficult task. To find a sufficient amount of both written and spoken examples from all three groups of speakers, I finally had to resort to four different corpora, namely VOICE, ELFA, ICLE and ICE-GB. I will now briefly introduce these four corpora, and state which part of my data I obtained from them.

VOICE (Vienna-Oxford International Corpus of English) is a relatively new corpus of about one million words of spoken English. Since it is defined as a corpus of ELF, it consists almost entirely of utterances by non-native speakers of English. 24.7% of the corpus, i.e. 253 121 words, are made up of data from German speakers. This proved a big enough sample to provide all the possessive constructions needed for the German spoken component of my research, while still being of manageable size with regard to filtering out those occurrences that are actually possessive. While there was some data from Finnish speakers as well (2.99% of the total corpus, i.e. 30 555 words), it was clearly too little to suffice on its own.

The Finnish samples from VOICE were thus supplemented by data from ELFA (English as a Lingua Franca in Academic Settings), another 1 million word corpus of spoken ELF, albeit with a focus on academic English. Unfortunately, ELFA was not yet freely available at the time I conducted my research, but I was given access to seven speech events that consisted predominantly of utterances by native speakers of Finnish. At a total of 15 748 words excluding speakers with a non-Finnish language background, this put the total number of spoken Finnish data to 46 303. While even more data would have been preferable, the addition of ELFA at least made sure that the 25 examples needed for the qualitative analysis would not all come from the same few speakers.

The written data for both learner groups was taken from ICLE (International Corpus of Learner English). This corpus consists of argumentative essays written by higher intermediate to advanced students of English, and contains about 180 000 words by Finnish, and about 215 000 words by German learners.
While it was unfortunate that all the texts were written by students at such a high level of language proficiency, ICLE still remained the best option available.

To be able to check the results obtained for the two learner groups against the patterns found in L1 English, data by native speakers of English was required as well. For practical reasons, I decided to use the ICE-GB (the British component of the International Corpus of English) as a source for such data, because it contains both spoken and written language, is part-of-speech tagged as well as parsed and allows users to look through complete speech events as well. At one million words, the complete corpus would have been too large to sort out all non-possessive genitives and of-constructions, so I limited my research to two subcategories, namely public dialogues (171 062 words) and non-academic writing (86 654 words).

In total, the corpus data that constitutes the basis for my research project amounts to nearly one million words. A summary of the different corpora involved and the amount of words included from each is given in Table 2.

<table>
<thead>
<tr>
<th>L1</th>
<th>medium</th>
<th>corpus</th>
<th>number of words</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>spoken</td>
<td>VOICE</td>
<td>253 121</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELFA</td>
<td>30 555</td>
</tr>
<tr>
<td>Finnish</td>
<td></td>
<td></td>
<td>15 748</td>
</tr>
<tr>
<td>German</td>
<td>written</td>
<td>ICLE</td>
<td>216 805</td>
</tr>
<tr>
<td>Finnish</td>
<td></td>
<td></td>
<td>179 911</td>
</tr>
<tr>
<td>English</td>
<td>spoken</td>
<td>ICE-GB</td>
<td>171 062</td>
</tr>
<tr>
<td>written</td>
<td></td>
<td>non-academic writing</td>
<td>86 654</td>
</tr>
<tr>
<td></td>
<td>total number of words</td>
<td>953 856</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Overview of corpus data included in this study

4.2.2. Sorting and filtering the data

As was already mentioned above, the extraction of the relevant data had to proceed in two steps. First, I performed an automatic search for all expressions that share a form with possessive constructions. The exact query syntax differed from corpus to corpus, but always amounted to the same basic
structures. The search for prenominal possessives was very simple, and involved nothing but a query for all instances of the possessive morpheme, which all tagged corpora included as a separate category. To obtain all possible postnominal possessive constructions, I retrieved all examples of a noun followed by the preposition of and a noun phrase (or rather, another noun preceded by an optional slot for a determiner and two more optional slots for adverbs and/or adjectives).¹¹

In the case of VOICE, this first data extraction process involved yet another step, since it was necessary to filter out only those utterances that were produced by native speakers of Finnish or German. To do that, the results of the query had to be cross-checked with the language background of the relevant speakers available in VOICE Online as part of the information about the speech event. The data from ELFA even required a completely different approach, since it was not part-of-speech tagged. I thus had to search for of and ' (so as not to exclude plural prenominal possessors) manually, and ignore not only non-possessive uses of POSS and of-phrases, but also all instances where the apostrophe was part of a contraction, and where of occurred in a structure other than a noun phrase. However, this search procedure meant that I did not have to perform the second step of data extraction that the other corpora required, namely the removal of all constructions that did not qualify as possessive constructions.

This manual selection of all those structures that qualify as possessives and exclusion of those that do not was based mainly on one criterion. Since one important aim of my research project was to determine which factors seem to be responsible for the choice of one possessive over another, I counted only such combinations of nominals where both constructions where theoretically possible. To test whether both possessive constructions would in principle have been applicable, I tried to reverse the order of possessor and possessee. If this was possible, the construction was counted as a possessive, if not, it was

¹¹ This is of course a simplification, since it is in principle possible to form postnominal possessives that are even more complex in structure, but one that should not affect the overall results too much. It can be assumed that the instances that were not covered by these queries are negligible, as even the most complex structures that were still counted (i.e. possessors pre-modified by three other words) were extremely rare.
excluded from my data. Obviously I had to be very liberal in my definition of what still constituted an acceptable structure when reversed, since I did not want to also rule out those examples where one possessive construction was clearly preferable to the other. Thus, constructions were accepted even if using the competing one would have resulted in an awkward expression, e.g. because of the length of possessee (33a) or possessor (33b) phrase, or would have required some rephrasing, e.g. with regard to determiners (33c) or due to the presence of certain types of modifiers (33b).

(33) a. Pissarro’s success in contriving to represent increasingly suburbanized Louveciennes as changeless country village (ICE-GB:W2B-002 #093:2)
   b. the same punishments of some Singaporeans who make the mistake of chewing bubble-gum in public (ICLE-FIN-JOEN-0014)
   c. both neighbour countries of [place5] (VOICE, PBmtg3:3154)

As a result of this criterion, all instances of non-possessive of-constructions were automatically excluded. Thus, I removed all of-appositions (34a), partitives (34b), pseudo-partitives (34c), binominals (34d) and sort/kind/type-constructions (34e), as well as combinations of the above (34f,g).

(34) a. a moment of utmost peace (VOICE, EDsed363:211)
    b. one of the main ideas (ELFA, CDIS03A)
    c. a three litre bottle of wine (VOICE, LEcon427:282)
    d. the ugly monster of a prof (ICLE-GE-AUG-0007.4)
    e. that sort of social constructive idea (ELFA, CPRE03D)
    f. the maximum of two per cent of age group (ELFA, CPRE03A)
    g. sort of mountains of butter (VOICE, EDsed301:31)

In the case of of-constructions, I even had to count out some structures that do qualify as possessive constructions, namely all those that include pronominal possessors. These had to be disregarded in order to ensure the balance and consistency of my data: Since possessive pronouns were tagged in the corpora as a category separate from POSS, the equivalent pronominal possessive

12 For the sake of clarity, I have removed all instances of false starts, repetition, hesitation, pauses and the like from spoken language samples. This practice was kept up for all the examples cited throughout the remainder of this paper.
constructions did not come up as part of my results either. The decision not to consider pronominal possessors was, however, based on more than just the impracticalities of extracting them from the corpora. Thus, as the results of the corpus queries confirmed, pronominal possessors are only acceptable in combination with it, and are very rare even then; I only found two examples that ran counter to this principle, and these were quite clearly learners’ errors (35). Therefore, all examples of prenominal possessives with a pronominal possessor would have had to be excluded due to the non-applicability of the reversibility criterion anyway.

(35) a. *a deposit of you (VOICE, PBsve426:65/PBsve436:30)
   b. *two colleagues of me (VOICE, POmtg314:14)

With regard to POSS, there were two types of structures that were disregarded, namely possessive compounds (36) and possessives that lacked a possessee (37a). The latter were only accepted if the possessee was given in the immediate co-text, i.e. in the case of contrastive examples (37b).

(36) a. women’s movement (VOICE, PRpan13:129)
   b. the cyclist’s lane (ICLE-GE-AUG-0077.3)

(37) a. it’s the same thing with David’s (ICE-GB:S1B-008 #159:3:A)
   b. The survey that we carried out is slightly broader than the CBI’s in that … (ICE-GB:S1B-021 #115:2:C)

Double possessives were, as expected, very rare; moreover, with a single exception, namely this journey of Carl Holmberg’s (ELFA, CPRE03B), they could all be counted out on the basis of their having a pronominal possessor alone. There were, however, also three much more frequent groups of expressions that had to be discounted, namely proper names (38), fixed phrases (39) and special construction types (40). What all of these have in common is that they have unit status of their own, i.e. that they are so highly entrenched in form (and meaning) that there is effectively no choice between pre- and postnominal possessive.

(38) a. free Cadbury’s Creme Eggs (ICE-GB:S1B-079 #108:1:A)
   b. university of Tampere (ELFA, CDIS03A)
(39) a. at the end of the day (VOICE, PBmtg300:135)
    b. the opium of the masses (ICLE-FIN-HELS-0030.1)

(40) a. the sixth of October (VOICE, EDsve452:115)
    b. the beginning of February (VOICE, EDsve421:193)
    c. the south of France (ICE-GB:W2B-002 #014:1)
    d. a half day’s debate (ICE-GB:S1B-033 #059:1:D)
    d’. a debate of a half day

As far as special (sub)types of possessive constructions are concerned, three different types were identified and excluded from the data. These were [the **DAY** of **MONTH**] (40a), [the **PART** of **TIME MEASUREMENT**] (40b), [the **CARDINAL POINT/CENTRE of CITY/STATE/COUNTRY/CONTINENT**] (40c), especially when preceded by a preposition. Moreover, there was one type of construction formally similar to theprenominal possessive that would in principle allow reversal of possessor and possessee, but would then result in an appositive, rather than a possessive of-construction (cf. 40d and d’). Therefore, all instances of this construction were removed from the data on the basis of their difference in meaning. Finally, there were a few instances of incorrect tags, such as when contractions or inverted commas were labelled as POSS. These were obviously disregarded in the analysis as well.

In summary, a variety of different structures had to be excluded because they were, while formally similar, semantically different, or did not allow a real choice between pre- and postnominal possessive. The whole process of manually sorting through the data proved vital, since it showed that using the unsorted outcome of the queries would have resulted in a skewed picture of the possessive alternation: While only a relatively small proportion (e.g. between 9 and 13% of the written data) of examples involving POSS did not qualify, the number of of-constructions that were ruled out was much higher, ranging from 54 to 60% for written texts, and even reaching 70% for the spoken native English data. Working with the unfiltered results would thus have made the postnominal possessive appear to be much more common than it really is, both in terms of total numbers and in relation to its prenominal counterpart.
4.2.3. Selecting a relevant subsample

For the qualitative part of my research, it was necessary to delimit the amount of data to be analysed so as to keep it to a manageable size. I finally settled on 25 examples for each combination of speaker group, medium of communication and type of possessive construction, i.e. a total of 300 instances of possessives. This decision was motivated to a large degree by the fact that the smallest sample I obtained (i.e. spoken examples of prenominal possessives as used by Finnish learners) consisted of only 69 occurrences. Since the number of different speakers that produced these constructions was much lower still at 15, analysing more than 25 examples would have entailed including too many utterances by one and the same speaker. This in turn would have severely affected the validity of my results, since any apparent tendencies might in truth only have been caused by the idiolect of one speaker. While the small size of the Finnish spoken component thus suggested that the maximum number of constructions in the subsample should be kept relatively low, it was clear that a certain minimum would be required in order to be able to make generalisations. 25 examples each seemed like a good choice, as it should be a small enough number to ensure that the spoken Finnish data will be statistically well-spread, and yet high enough to reveal potential trends and to avoid excessive fluctuation. To test this assumption, I analysed 50 examples of one component (spoken English prenominal possessives) and checked whether the additional data had an effect on the results. As this extension did not result in any significant changes in the overall picture, I concluded that 25 samples each would be sufficient.

The selection of these 25 examples was done randomly. I numbered all occurrences within each component, and used an online random number generator to determine which numbers should be included in the subsample. This automatic selection was overridden only in a few cases, namely when the choice of too many consecutive numbers resulted in too many examples from the same speaker or speech event.
4.3. Determining the parameters

The final decision that had to be made prior to the analysis itself was how to set up the research parameters. In fact, this involved two choices: I had to determine which factors to include, as well as how to define those that were included. The former decision was guided primarily by the large body of work that already exists on possessive alternation in English. Since there have been various suggestions as to what the key parameters in the alternation of the two constructions might be (cf. section 3.1.3.), an obvious strategy was to take over these factors and to test whether they could indeed account for the distribution found in my data. I adopted all those parameters that had been (a) said to be decisive in the choice between POSS and of, and/or (b) mentioned as contributing factors in more than one framework. The resulting complex of factors consists of nine partly overlapping categories, namely animacy, givenness, activatedness, complexity, number of the possessor, presence of a final sibilant in the possessor phrase, activatedness of the possessive relation, semantic roles of possessor and possessee, and reference-point versus specifying function of the possessor.

The fact that some of these categories overlap was not considered problematic, since it was expected that there would be some interaction between the different factors. Thus, topicality was split into two separate parameters, givenness and activatedness, of which the second, i.e. activatedness, was much broader defined, and included givenness as one important criterion determining the activation state of concepts. The number of the possessor and the presence of a final sibilant constitute a second example for overlap between categories: While they do not necessarily coincide every time, plural possessors will of course in the majority of cases also end in a sibilant. A third and perhaps less obvious interrelation between parameters exists between the complexity and topicality of the possessor and possessee nominals. Concepts that are given and/or activated usually will not require an elaborate description to be identified by the listener, and will therefore tend to be noticeably shorter than nominals that are non-topical (cf. Keizer 2007b: 353).
In the remainder of this section, I will briefly discuss each of the parameters that I included in my analysis. I will both mention the different subcategories that I distinguished for each factor (if any), and, where unclear, explain what criteria led me to assign a certain example to one of these categories.

4.3.1. Animacy

Animacy was mentioned as determining factor by Hawkins (1981), Rosenbach (2001, 2002, 2003) and Hinrichs & Szmrecsanyi (2007), and recognised as a contributing factor by Devriendt (1983), Deane (1987), Stefanowitsch (2003) and Keizer (2007a,b). In my own analysis, I wanted to test both if possessor and possessee correlate strongly with a certain animacy status, and if the more animate nominal usually takes linear precedence over the second, less animate one. To be able to answer these questions, I defined a number of subcategories that are assumed to differ in their degree of animacy. The basis for this classification was Hawkins’ animacy hierarchy, given in (14) above, which was, however, extended considerably to make it more applicable to the more fine-grained distinctions found in actual language use. One distinction that was added was that between concrete and abstract inanimate nouns, as it was shown by Keizer (2007a: 64, 2007b: 317) that this is an important differentiation that Hawkins’ hierarchy lacks. Moreover, a preliminary scan of the data indicated that two additional categories were needed, namely those of human organisations, and human inanimates.

The former category comprises all those nouns that denote larger structures which are not animate as such, but gain animacy status since they are conceptualised as consisting of, and being governed by, human beings. Thus, a country can be conceptualised both as an inanimate landmass, as in (41a), or as an animate network of people that can behave in a certain way (41b). It is important to note that this distinction is not clear-cut, but involves a certain amount of gradience. Thus, a possessor such as the Arab world (41c) is clearly much less animate than Serbia in (41b), since it completely lacks the agency of the latter. At the same time, however, it is somewhat more animate than the
possessor in (41a), even though both are ultimately conceptualised as inanimate geographical area. This is the case because world refers not to the globe as such, but also implies the cultural (and therefore also human) aspects of the region.

(41) a. the hills of Wales and Scotland (ICE-GB:W2B-014 #014.1)
    b. Serbia’s cooperation with the international criminal tribunal (VOICE, P0prc465:3)
    c. the urban areas of the Arab world (ICLE-FIN-HJT-0005.1)

The final additional category, i.e. human inanimate, turned out to be necessary to distinguish human beings from entities that are human-like, but lack the capacity for deliberate actions that actual people have. The need for this differentiation becomes very clear in examples such as (42a), where the possessor is an author and the possessee her creation, i.e. a literary persona: While the latter is imagined as a human being, it is still clearly inanimate when compared to the real person that created it. The classification as human inanimate is not inherent in the nominal itself, however, but is a matter of conceptualisation: Thus, in (42b), Frank Rigby would be attributed human animate status, even if he is just as much a product of imagination as the possessee in (42a) is.

(42) a. Dorothy Gilman’s central character is Mrs Emily Pollifax … (ICE-GB:W2B-005 #006:1)
    b. In this work, the narrator tries for a panoramic view of class politics in Britain after 1918, including the depiction of harrowing scenes such as […] Frank Rigby’s loss of employment as a bus-driver … (ICE-GB:W2B-009 #027:1)

In sum, seven different degrees of animacy were recognised; they were ranked from highest to lowest according to the hierarchy given in (43). This hierarchy was then also used to determine whether the possessor or the possessee was more animate, or whether they ranked equally.

(43) HUMAN ANIMATE (H A) < HUMAN ORGANISATION (H O) < HUMAN INANIMATE (H I) < HUMAN BODY PART (B P) < NON-HUMAN ANIMATE (N A) < CONCRETE INANIMATE (C I) < ABSTRACT INANIMATE (A I)
4.3.2. Topicality

Topicality is seen as a decisive factor in the choice between pre- and postnominal possessives in several frameworks, but these frameworks differ in how they define this notion. Thus, Deane (1987) correlates topicality with animacy, whereas Rosenbach (2001, 2002, 2003) and Devriendt (1983) associate topics with givenness; Taylor (1996), finally, understands as topical all those concepts that are activated and therefore cognitively accessible. Since Deane’s definition of topicality largely coincides with the factor animacy as described above, the only two types of topicality that I treated as separate parameters of analysis were givenness and activatedness.

4.3.2.1. Givenness

Within the parameter of givenness, I distinguished three different subcategories, namely directly given nouns (G1), indirectly given ones (G2) and those that were not given at all (N). To determine which variable a nominal belonged to, I examined the complete preceding co-text; only in the case of a few very long conversations did I disregard the beginning of the speech event, and that only if it was evident that there had been a change of topic. If a nominal had been mentioned earlier, it was classified as G1; if its first occurrence was as part of the possessive construction in question, but a synonym or near-synonym had been used before, the nominal was assigned G2 status; finally, if neither of the other criteria applied, the word was categorised as N. A nominal was of course also accepted as given if it was referenced in the title of the speech event.

As was the case with animacy, I also checked whether the higher-ranking nominal had a tendency to take up the first slot, i.e. whether more given possessors usually occurred in a prenominal, and more given possessees in a postnominal possessive. G1 was placed at the top of the givenness scale, followed by G2, with N going at the bottom. Apart from this obvious hierarchy, I also recognised subtler differences within the two G categories, namely when one of the nominals was quite clearly more given than the other, even though they were both assigned the same status on the basis of the criteria mentioned
above. Thus, if one nominal was mentioned considerably more often and/or much more recently than the other, it was ranked higher with regards to givenness, even if both belonged to the same category.

4.3.2.2. Activatedness

The basis for the category of activatedness formed the three activation states recognised by Chafe (1987). He distinguishes between active, semi-active and inactive states, which differ in terms of how present they are in the speaker’s mind. Thus, active concepts are “in a person’s focus of consciousness”, whereas semi-active ones are “in a person’s peripheral consciousness” (ibid.: 25), i.e. backgrounded but accessible. Inactive concepts, finally, are neither in focus nor present in the background, but constitute new information. Following Chafe, concepts are considered active when they have already been introduced into the discourse. Semi-active concepts, on the other hand, can acquire this status either by means of “deactivation from an earlier active state” (ibid.: 29), or through the activation of another concept within the same frame, i.e. through mention of a concept that it is conventionally associated with. Finally, concepts can be semi-active if they form part of the (non-linguistic) context of the speech event, e.g. if they are participants in this event. Taylor (1996: 211), who adopts and expands on Chafe’s framework, refers to these three types of activatedness as “discourse-conditioned topicality”, which he distinguishes from “inherent topicality”. This latter category is introduced to account for the fact that there are some concepts which are naturally more accessible than others. Taylor argues that human beings rank highest in terms of inherent topicality, while abstract concepts are positioned at the other end of the scale (ibid.: 220). Thus, for Taylor, animacy does not constitute a separate factor, but is simply one aspect of the topicality principle.

The categories I recognised in my research follow directly from those proposed by Chafe and Taylor, but so as to be able to judge whether the more activated nominal was placed first, I added a ranking according to degree of activation. In total I distinguished five different subcategories, described in the following in
descending order of activatedness: As active (A), I classified all those nominals that were mentioned (either explicitly, or implicitly in the form of a synonymous expression) within the last paragraph in writing, or as part of one of the last one or two utterances in spoken conversation, as well as nominals that corresponded to the subject of the speech event. Thus, the possessor in (44) would have been ranked as A even without prior mention, because it occurred in an argumentative essay entitled “Pets”.

(44) the size of the pet (ICLE-FSW-ABO-0009.3)

With regard to semi-activatedness, I defined three different subclasses. As S1 I classified all those concepts that were previously active, but became deactivated as the discourse moved on. S2 was the label used for nominals that were part of a relevant frame, or activated through their close association with the situational context. An example for the latter subtype is the possessor in Israel’s religion (ICE-GB:S1B-001 #002:1:A): As the speech event in question was a classroom lesson at the UCL Jewish & Hebrew Department, it can be assumed that Israel will be at least in the periphery of the speech participants’ minds. The third and final kind of semi-activatedness (S3) I distinguished corresponds to Taylor’s inherent topicality, i.e. basically all human animate nominals. Inactive status (I) was attributed to all nominals that did not qualify for one of the other four types described above.

In addition to assigning each nominal to one of the five categories and determining whether possessor or possessee ranked higher, I also made a note whenever one of two special conditions applied. The first of these concerned animacy, and came into effect whenever the nominal to the left outranked the second nominal on the sole grounds that it had S3 status. This was marked separately so as to be able to check whether Taylor’s addition of inherent topicality (and thereby animacy) to the notion of activatedness had a positive or negative effect on its descriptive power.

The second additional parameter had to do with the interaction between the two nominals: I counted as a special subtype all those possessive constructions in which the nominal that was mentioned first automatically activated the second
one, because they both belonged to the same frame. Examples for such combinations are given in (45). Interestingly, possessives such as the one in (45a), where the order of the nominals would have been irrelevant for their mutual activation, were the exception. In the majority of cases, the order of possessor and possessee was an important factor within this subclass, as e.g. in (45b). While speaking of Hitler automatically activates the concept of Germany, the reverse does not apply: It could hardly be said that mention of the word Germany alone would evoke strong associations with Hitler.

(45) a. the recharging of the batteries (ICLE-FSW-ABO-0005.5)
   b. Hitler’s Germany (ICLE-FIN-HELS-0020.1)

4.3.3. Complexity/end weight

Complexity (especially of the possessor phrase) is seen as the reason behind the possessive alternation by Hawkins (1994), and considered a major contributing factor by both Keizer (2007a,b) and Hinrichs & Smrecsanyi (2007). In general, it is assumed that speakers will be influenced in their choice for one or the other possessive construction by the so-called principle of end weight, i.e. “the tendency for long and complex elements to be placed towards the end of a clause” (or phrase) (Biber 1999: 898). This principle (and indeed the whole parameter of complexity) might at first seem too formal in nature to be of interest within an analysis of possessives guided by CG, but in fact, complexity does play an important role from a cognitive standpoint as well: The weight of linguistic structures and their position in an utterance determine the mental effort that a speaker will need in order to produce this utterance, as well as how difficult or easy it will be for a listener to process it. Since language is seen as a joint effort whereby “both conceptualizers are involved in coordinating cognition” (Verhagen 2007: 60), speakers will tend to opt for constructions that will make parsing relatively easy, and thus position heavy structures towards the end.

To measure the relative complexity or weight of the possessor and possessee nominals, I resorted to a simple word count. Word counts were declared an adequate measure for syntactic weight and complexity in general by Wasow
(1997) and Szmrecsanyi (2004), respectively, and were tested and found to be just as suitable as other operationalisation principles for possessives in particular by Grafmiller & Shih (2011), cf. also Shih et al. (to appear). In my analysis, I counted as a word every structure delimited from others by means of spaces or hyphens; the only words that were completely disregarded were the initial determiners in a postnominal possessive. Since these would not be present in the corresponding prenominal construction, they should not play a role in a speaker’s choice for a certain possessive, at least not with regard to complexity. Moreover, as was the case with animacy and topicality, I also noted which nominal ranked higher than the other, but did not factor in any additional, overriding parameters (such as syllable count or the number of syntactic nodes) to resolve tied results.

4.3.4. Number of possessor and presence of a final sibilant

The presence of a final sibilant in the possessor phrase was recognised as an important factor by Hinrichs & Szmrecsanyi (2007), and was also mentioned by Keizer (2007a,b), together with the number (and/or gender) of the possessor. While they were kept apart in the analysis itself, these two parameters will be discussed together here, as well as in the presentation of the final results. This unified treatment of the two factors suggests itself because of their considerable overlap: As was mentioned above, it is to be expected that plural possessors will usually contain a final sibilant, since regular English plurals are marked by the suffix -s.

The application of both parameters proved very straightforward, as it only required assigning the nominals to one of two binary categories (singular or plural, and presence or absence of a final sibilant). The only difficulty lay in deciding whether to classify nominals as plural on the basis of formal or semantic considerations. Since meaning is ultimately a matter of conceptualisation and thus more difficult to assess, I determined the number of the possessor on formal grounds. Therefore, nominals that could in principle be conceptualised both as plural or singular entities were assigned plural status
only if it was clear from the co-text that they were intended as such. Accordingly, *everybody* was classified as plural possessor in (46a), but interpreted as singular in examples like (46b).

(46) a. … can everybody remind me who they are because I've forgotten *everybody’s name* (ICE-GB:S1B-002 #013:1:A)

b. The state’s duty would it be to protect *everybody’s life* as is provided in the constitution. (ICLE-GE-AUG-0078.1)

### 4.3.5. Activatedness of the possessive relation

The activatedness of the possessive relation was put forward as a key factor by Keizer (2007a,b). In my own analysis, this parameter was defined along similar lines as that of the activatedness of possessor and possessee (cf. section 4.3.2.2.), but instead of five subcategories, I only distinguished three broad ones, i.e. activated relations, semi-activated ones and inactive ones. The criteria behind assigning a construction a certain status were also slightly different. Thus, I classified as activated all those possessive relations that had been referred to previously, as long as this prior mention did not occur much earlier than the possessive construction in question. As with the activatedness of the individual nominals, however, different wordings were accepted as well, as long as they unambiguously denoted the same relation. One such example is given in (47), where the possessive relation *the construction of the motorway* is activated through a full sentence.

(47) The new motorway to Prague is going to be build. […] After the unification *the construction of the motorway* reached new importance. (ICLE-GE-DRE-0010.1)

Semi-active status was attributed to all relations that could be inferred from the context, i.e. corresponded to the category S2 as defined above. An example of such a semi-activated relation can be found in (48). Here, the possessive

---

13 In Keizer’s account, reference is also made to a related parameter, namely the intrinsicness of the possessive relation. Prime examples for intrinsic relations are expressions involving body parts, e.g. *John’s leg*. While one could argue that there is an area of overlap between intrinsicness and activatedness, the present analysis operates with a relatively narrow understanding of the latter notion that does not automatically include intrinsic relations.
relation is semi-activated via the frame surrounding the concept of child abuse. Note that treating *child abuse* as a synonym would have been problematic, as it is associated not only with physical maltreatment, but also with psychological cruelty; the possessive relation could thus not have been given active status. The third and final category, i.e. inactive relations, was used only when none of the other two applied.

(48) The popular view of child abuse used to relate to *the physical injury of young people*. (ICE-GB:W2B-017 #041:1)

### 4.3.6. Semantic roles

Semantic roles were included in this study due to their key importance in Stefanowitsch (2003). However, even just a quick glance at the data revealed that the different types of relations recognised by Stefanowitsch would not be enough to account for the wide array of possessive constructions found in actual language use. Therefore, I adapted and extended the list of semantic roles somewhat to make it more applicable to my data. The resulting catalogue of semantic relations is illustrated in Table 3.

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>agent - event</td>
<td>[S4]’s presentation (VOICE, POwgd243:94)</td>
</tr>
<tr>
<td>attribute - holder</td>
<td>the salty-sour taste of salt-and-vinegar crisps (ICLE-GE-AUG-0050.1)</td>
</tr>
<tr>
<td>component - whole</td>
<td>the blue part of the payment form (VOICE, EDsve421:30)</td>
</tr>
<tr>
<td>creator - creation</td>
<td>Acharya’s article (ELFA, USEMD110)</td>
</tr>
<tr>
<td>interpersonal</td>
<td>alcoholics’ wives (VOICE, PRpan13:149)</td>
</tr>
<tr>
<td>located - location</td>
<td>the embattled Spanish Republican Government of that era (ICE-GB:W2B-005 #139:1)</td>
</tr>
<tr>
<td>patient - event</td>
<td>President Kennedy’s assassination (ICE-GB:W2B-010 #261:1)</td>
</tr>
<tr>
<td>possessor - possessee</td>
<td>your parents’ home (ICE-GB:S1B-049 #086:1:A)</td>
</tr>
</tbody>
</table>

Table 3: Extended list of semantic relations encoded by possessive constructions

Of Stefanowitsch’s original ten types of relations, only six proved relevant for possessives as defined here; the rest correspond primarily to non-possessive *of*-constructions. Apart from leaving out certain categories altogether, I also
made some changes to those that I did take on: The category of time-event was expanded so as to include not only temporal relations, but also spatial ones, and the semantic roles associated with it were thus renamed to location and located, respectively. Moreover, participant-event relationships were split into two categories which differ with regard to the agency of the possessor phrase, i.e. agent-event and patient-event. Finally, a new type of relation was added, namely creator-creation.

In addition to classifying possessor and possessee in terms of semantic roles, I also investigated whether the semantic role construction model as a whole had predictive power. If it turned out that Stefanowitsch’s suggestions about the inherent meanings of the two constructions applied only to a very limited number of examples, it could be concluded that they did not have any validity for actual language data. In order to test whether that was the case, I checked if the semantic relation in question required an override of the assumed default meaning of the respective possessive construction, and how closely those cases without overrides resembled the proposed prototypes (i.e. possession and intrinsic part-whole relationships, cf. section 3.1.3.). The latter test was added so as to ensure that the overall picture was not distorted by very marginal cases of possessor-possessee or component-whole relations. To give just one example of the distinction between prototypical and non-prototypical cases, consider the expressions given in (49). While both were classified as receiving the default interpretation of possession, only the semantic relation in (49b) was counted as prototypical.

(49) a. John Major’s Britain (ICE-GB:S1B-005 #169:1:A)
b. Ace’s motor scooter (ICLE-FIN-HJT-0023.1)

4.3.7. Reference-point versus specifying function of the possessor

The final parameter that I considered in my analysis was the general function of the possessor phrase. If it was used to help locate the possessee, it was classified as a reference point; if it provided further information about the identity of the possessee, it was attributed specifying function. This distinction,
which goes back to the account of possessives proposed by Langacker (1991, 1995, 1999, 2009; cf. also section 3.1.3. above), and was also recognised by Keizer (2007a,b) and Taylor (1996), proved the most difficult to apply of all the parameters, as it is comparatively vague and difficult to delineate. What is more, this factor differed from all the others in that both of its subcategories were already inherently tied to one of the two possessive constructions: Since the reference-point model is by nature dynamic, and can only apply if the possessor is mentioned first, it is only applicable to prenominal possessives. Similarly, the possessor can only have specifying function if the possessee is already given, which is only the case in a postnominal possessive construction. Therefore, all that remained to be checked was whether prenominal possessors really did function as reference points and postnominal ones as specifiers, or whether there were constructions where it was doubtful that the possessor fulfilled the expected role.

4.4. Problems and limitations

Before I venture into the presentation and discussion of my findings, there is one final aspect regarding the design of this research project which needs pointing out. This aspect concerns the constraints that this study is subject to. Some of these are limitations that follow automatically from the kind of data that was examined, while others pertain to problems that emerged during the process of the analysis.

Within the former type of constraints, i.e. such that are inherent to the data, the one that can be assumed to have the most far-reaching consequences relates to the fact that a considerable number of parameters had to remain largely uncontrolled. Among these factors were also some that could potentially play an important role in the performance of language learners, such as the degree of exposure to the L2 (both in the sense of the time speakers had actively spent studying it, and the role it played in their lives outside of classroom situations), the amount of explicit instruction that learners had received, and certain individual differences, e.g. with regard to motivation or language aptitude. With
the exception of the data from the ICLE, the participants’ knowledge of other foreign languages had to be left open as well; the only variable that could be stabilised for all learners was that they did not speak a second L1. While the number of non-regulated factors is unfortunate, it was also unavoidable: There are, as of yet, simply no corpora that would supply both the kind of data that was required for this study, as well as the additional information needed to control the above-mentioned parameters.

Of all the corpora that I used as sources, the only one that did provide such information was the ICLE. This follows logically from its conception as a learner corpus; VOICE and ELFA, on the other hand, were compiled for a completely different purpose. Interestingly, even though the ICLE was the only corpus intended for an analysis of learner language, it was probably less suited to the kind of research done here than the other corpora. This is the case precisely because it is highly controlled: As was mentioned above, it only contains texts written by higher intermediate to advanced learners of English. Thus, all the speakers represented in the Finnish and German written components of my subsample were university students of English, had studied English for an average of 11.2 years and spent an average of four months in an English-speaking country, even disregarding the one Finnish learner who had spent a total of 62.5 months abroad. This high level of English skills is problematic not only because it makes the written learner data less comparable to the rest, which can be assumed to represent a much wider statistic spread, but also because such advanced learners of English are much less likely to be affected by language transfer: It can be expected that they will have mastered the use of possessive constructions to a much higher degree than the average non-native speaker of English. However, there is also a positive side effect to this uneven distribution: If CLI effects can be identified in the language of these learners, then this is a much more striking and reliable result than it would be with less advanced students of English.

Another inherent limitation pertains to the size of the spoken Finnish component of my data. While all other types of learner data amount to about 200 000 words each, the spoken Finnish subcorpus only counts about 45 000 (cf. Table 2
Moreover, of the seven speech events taken from ELFA, five are presentations; a large portion of the 15 000 words from ELFA might thus resemble written language more closely than spoken, as presentations are usually prepared in advance, and therefore tend to lack the spontaneous nature of spoken conversation. Due to these two restrictions, it can be assumed that the spoken Finnish data will exhibit larger fluctuations, and that any results obtained from it will be of a more tentative nature than the rest of the findings. These constraints should, however, be limited to the purely quantitative part of this project, as the size of the subsample for closer analysis was chosen specifically so as not to invalidate the Finnish spoken examples.

An issue that came up in the process of the qualitative analysis (albeit not unexpectedly) was the limited amount of information available on the non-linguistic context of the speech event. While the co-text was usually complete (except for some samples from the ICE-GB), certain aspects of the situational context (such as the shared knowledge of the speech participants) were simply inaccessible. This is, however, a problem that will occur in any corpus research that involves parameters which require knowledge about the context, and should not impair the results of this study. Quite the contrary, in comparison to most other analyses of the possessive alternation in English, the one conducted here involves a much more thorough investigation of contextual aspects, and should thus have greater, rather than less informative value.

A small problem, but one that is still worth mentioning, concerns the mark-up conventions of VOICE and ELFA. In both corpora, people, organisations and locations are represented not by their names, but by aliases such as [first name4], [org3] or [place1] to guarantee anonymisation (cf. VOICE 2007: 6). This practice potentially interferes with the qualitative analysis of my data, as it makes it impossible to assess whether such nominals contain a final sibilant or not. Since it is more likely that a name will end in some other sound, I finally decided to classify all occurrences of aliases as if there was no final sibilant present. However, whenever an example containing an alias was singled out for individual discussion, the possibility of it ending in a sibilant was taken into account. This way, I hope to have represented the situation as accurately as
possible without having to exclude a considerable amount of data on the basis of just one uncertain parameter.

As far as potential distortions of the final results are concerned, there is one more aspect that deserves mention here. This issue relates to how accurately CLI can be measured on the basis of the available data. Since the research performed as part of this thesis is limited to possessive constructions, certain other structures that might be the result of language transfer (such as compounds, use of a bare nominal or word-by-word translations of constructions such as the German possessive dative) will automatically be excluded from the data. The fact that such expressions will not be covered by the analysis might result in an underestimation of the importance of L1 influence. At the same time, however, this means that any indications for language transfer that are found are likely to be significant, as they can be assumed to represent only a limited portion of the overall effects of CLI.

The final problem that I would like to mention is perhaps also the most profound one, and yet it is an issue that no linguist can escape, no matter how thorough and rigorous their work. It has to do with the fact that language is fuzzy by nature, and therefore defies clear-cut categorisation. One area where the blurred boundaries between categories became very noticeable was the data selection process. While there were many constructions that could easily be identified as possessives or excluded without doubt, I also encountered a number of ambiguous cases. The three structures in (50), for instance, raise the question of where to draw the line between possessive constructions and proper nouns. Whereas (50a) is a clear example of a possessive that can be reversed, it is doubtful whether this criterion also applies to the other two constructions, as they both seem to be much more entrenched. Thus, we tend to think of *history of technology* as a certain kind of history, rather than as the history of a certain thing. The apparent unit status of this structure is most obvious in (50c): Interestingly, the adjective *European* is placed before *history*, even though it is quite clear that it is more closely connected to the concepts of science and technology. Apparently, however, the whole noun phrase has such strong unit status that the adjective is set to the very front so as to preserve the
conventional form of the expression. On the basis of this evidence, both (50b) and (50c) were excluded.

(50)  a. ... and doctor &lt;NAME S1&gt; has also three years ago if I’m not mistaken written a book on the history of this university …
    b. he has produced several books related to history of technology …
    c. ... that book is going to be published in few months next year with name European history of science and technology … (ELFA, CDIS03A)

Fuzzy boundaries proved to be even more of an issue in the qualitative analysis of my samples, as this involved a much larger number of categories. One parameter that turned out to be particularly problematic in this respect was the semantic relation encoded by possessor and possessee. While the examples given in Table 3 are relatively unambiguous, the actual occurrences that I found were often very difficult to assign. To give just one example of an obvious grey area between two types of semantic relation, consider the gradience between agent-event and holder-attribute in the following set of expressions:

(51)  a. Lord Scarman’s suggestions (ICE-GB:S1B-033 #121:1:G)
    b. John Major’s commitment to the National Health Service (ICE-GB:S1B-039 #069:1:C)
    c. Rodney’s romantic imagination (ICE-GB:S1B-037 #075:1:B)
    d. people’s knowledge about these things (VOICE, PRpan294:107)
    e. Serbia’s dominant position (ICE-GB:W2B-007 #066:1)
    f. women’s low self-esteem (ICLE-FIN-HJT-0008.1)

While (51a) is a clear case of an agent-event relation, and (52f) undoubtedly encodes the roles of attribute and holder, this distinction becomes less and less clear as one moves towards the central examples. In this particular case, I decided to draw the line between the two categories between (51c) and (51d): The former still involves some degree of agency on the part of the possessee, whereas the latter does not. However, in many cases, there were arguments for both, or even several categories. Thus, how should one classify possessives such as the realities of the subject matter (ICLE-FIN-HELS-0019.1), or the consequences of our acts (ICLE-FIN-HJT-0015.1)?
Fuzziness was not only an issue with more obviously vague categories such as semantic roles, however, but posed problems even with regard to as seemingly straightforward a parameter as animacy. While it is still conceivable that setting the boundaries between the two categories of concrete and abstract inanimates might prove difficult, surprisingly, there were also quite a number of cases where it was not clear if a nominal should be attributed animate or inanimate status. Cases in point are the two possessors in (52), which could both be classified either as H O, or as C I. The basis for assigning (52a) to the former and (52b) to the latter category was largely intuitive; the only more concrete argument for this decision relates to the possessee phrase, i.e. that laws have a more strongly human connotation, while the phrase open hours evokes images of the doors to a building being opened or closed.

(52) a. the laws of a certain country (ICLE-FIN-JOEN-0011.1)
   b. the open hours of the kindergartens (ICLE-FIN-HJT-0007.1)

As the last example nicely illustrates, the lack of clear demarcation lines between categories entailed that classification often had to happen on the basis of personal beliefs and feelings. While it may thus well be the case that someone else would have categorised certain examples differently, my analysis should at least be reliable in the sense of being consistent; as it was always the same subjective mind that made the judgement calls, all the data should have been classified according to the same standards. However, as must be evident from the large amount of space that I devoted to this chapter on methodology, I do believe that striving for clarity is of vital importance. I thus hope that I managed to describe the kind of criteria and thinking processes that lie behind my decisions in sufficient detail to render them understandable for other people as well.
5. Presentation of results

This chapter deals with the findings of my analysis, which will be presented in three steps: First, I will address the results of the quantitative part of my research, and compare the frequency of the two possessives as used by the three speaker groups. Then, in a second step, I will turn to the qualitative analysis of my data, and take a closer look at those areas where L1 transfer is unlikely to have any great effect, i.e. the factors behind German learners’ choice of the prenominal and Finnish learners’ choice of the postnominal possessive. Finally, I will go through all the research parameters individually, and contrast their apparent role in the language of the learners with that in native English.

5.1. Quantitative analysis: Comparison of frequencies

The total number of occurrences of the two possessive constructions as well as their relative frequency (per 100 000 words) are given in Table 4.

<table>
<thead>
<tr>
<th>language</th>
<th>type</th>
<th>medium</th>
<th>number of occurrences</th>
<th>corpus size</th>
<th>frequency/100 000 words</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finnish</td>
<td>'s</td>
<td>spoken</td>
<td>69</td>
<td>46 303</td>
<td>149.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VOICE</td>
<td>33</td>
<td>30 555</td>
<td>108.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELFA</td>
<td>36</td>
<td>15 748</td>
<td>228.60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>written</td>
<td>633</td>
<td>179 911</td>
<td>351.84</td>
</tr>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>702</td>
<td>226 214</td>
<td>310.33</td>
</tr>
<tr>
<td></td>
<td>of</td>
<td>spoken</td>
<td>252</td>
<td>46 303</td>
<td>544.24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VOICE</td>
<td>103</td>
<td>30 555</td>
<td>337.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELFA</td>
<td>149</td>
<td>15 748</td>
<td>946.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td>written</td>
<td>1 730</td>
<td>179 911</td>
<td>961.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>1 982</td>
<td>226 214</td>
<td>876.16</td>
</tr>
<tr>
<td>English</td>
<td>'s</td>
<td>spoken</td>
<td>280</td>
<td>171 062</td>
<td>163.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>written</td>
<td>336</td>
<td>86 654</td>
<td>387.75</td>
</tr>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>616</td>
<td>257 716</td>
<td>239.02</td>
</tr>
<tr>
<td></td>
<td>of</td>
<td>spoken</td>
<td>891</td>
<td>171 062</td>
<td>520.86</td>
</tr>
<tr>
<td></td>
<td></td>
<td>written</td>
<td>1 008</td>
<td>86 654</td>
<td>1 163.25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>1 899</td>
<td>257 716</td>
<td>736.86</td>
</tr>
<tr>
<td>German</td>
<td>'s</td>
<td>spoken</td>
<td>121</td>
<td>253 121</td>
<td>47.80</td>
</tr>
<tr>
<td></td>
<td></td>
<td>written</td>
<td>532</td>
<td>216 805</td>
<td>245.38</td>
</tr>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>653</td>
<td>469 926</td>
<td>138.96</td>
</tr>
<tr>
<td></td>
<td>of</td>
<td>spoken</td>
<td>588</td>
<td>253 121</td>
<td>232.30</td>
</tr>
<tr>
<td></td>
<td></td>
<td>written</td>
<td>1 621</td>
<td>216 805</td>
<td>747.68</td>
</tr>
<tr>
<td></td>
<td></td>
<td>total</td>
<td>2 209</td>
<td>469 926</td>
<td>470.07</td>
</tr>
</tbody>
</table>

Table 4: Overview of total number and frequency of possessive constructions
As can be seen from this table, the number of tokens varies greatly between the different constructions, media of communication and speaker groups, ranging from only 69 instances of Finnish spoken prenominal possessives to 1 730 instances of Finnish written postnominal possessives; however, this extreme variance is not significant, as it results largely from the very different sizes of the four corpora. What is more remarkable is that even the standardised frequencies show a considerable degree of variation. While it was expected that there might be differences between written and spoken language, and that Finnish and German learners would use possessive constructions differently from native speakers, it was not anticipated that the three speaker groups would differ so much with regard to the overall frequency of possessive constructions.

As Figure 12 shows, there is a significant difference between the three groups in terms of the number of occurrences of possessives per 100 000 words. Finnish speakers produced the most possessive constructions at a total frequency of 1 186.48, followed by English native speakers, who used possessives with a frequency of 975.87, with German speakers bringing up the rear with only 609.02 possessives in 100 000 words. Thus, native speakers of English used 17.8% less possessives than Finnish learners, and German learners even only about half the amount (i.e. 48.67%) of the Finnish group.

![Figure 12: Total frequency of possessive constructions per 100 000 words](image)

While this is in itself an interesting finding, it is not relevant to the research done here: It is not the number of possessive constructions overall, but the choice between the two, i.e. the proportion of prenominal and postnominal possessives...
within the total number of occurrences, that is of importance here. Therefore, for
the remainder of this section, the focus will be on the ratio of prenominal to
postnominal possessives, as well as on frequencies that have been
synchronised so as to properly reflect their relative distribution.

The pie charts in Figure 13 illustrate the differences in distribution between the
three speaker groups. As can be seen from this direct comparison, the
differences between native speakers of English and Finnish and German
learners are much smaller as might have been expected: Thus, the possessive
constructions used by Finnish speakers actually exhibit the same overall ratio of
prenominal to postnominal possessives as those produced by English
speakers, i.e. 25% to 75%, or 1:3. Even the most divergent group, i.e. German
learners, seem to use possessives similarly to native speakers, at a ratio of
23% to 77%.

While these numbers indicate that there is only a small difference between the
three speaker groups, a closer look at the respective ratios reveals that their
use of the two constructions does differ, even if only on a relatively small scale.
Thus, if the number of prenominal possessives is kept stable at a frequency of
239.02 occurrences per 100 000 words (i.e. the frequency observed for native
speakers of English), the corresponding number of postnominal possessive
constructions differs from group to group. The resulting patterns can be seen in Figure 14. In comparison to the 736.86 occurrences of of-possessives in the language of native speakers of English, Finnish learners do indeed seem to use the construction a little less frequently (i.e. 8.42% less), and German learners slightly more frequently (i.e. 9.73% more). Expressed as a direct ratio of prenominal to postnominal possessives, these results translate to 1:2.82 for English native speakers, 1:2.82 for Finnish learners, and 1:3.38 for speakers with a German L1 background.

However, these figures only reflect the overall distribution of the two possessive constructions, i.e. the frequencies when the written and the spoken data from each speaker group are combined. When looking at the written and spoken components separately, a somewhat different picture emerges. Thus, while the patterns found for written use correspond to those of the complete data set, the spoken language data exhibited a different distribution.

The results for the spoken and written subcomponents are contrasted in Figure 15. As was the case with Figure 14, the number of prenominal possessives is controlled to better show how the distribution differs between the three speaker groups; again, the frequency of the prenominal possessive in native English was used as the norm. With regard to written data, the only noticeable difference to the overall results is that the German learners performed

![Figure 14: Frequency of postnominal possessive if prenominal possessive is kept stable](image)
significantly better, with a discrepancy of only 1.57% as compared to native use. At minus 8.9%, the difference in frequency between Finnish learners and native speakers of English was almost the same as for the complete data set. The corresponding ratios of prenominal to postnominal possessives amounted to precisely 1:3 for native speakers, 1:3.05 for German learners, and 1:2.73 for the Finnish group. The distribution within the spoken component differs from that just described in two respects: First, while German speakers still use the postnominal possessive more than native speakers of English, the spoken Finnish results deviate from those found for the written subcomponent, as they now also outnumber English native speakers with regard to the relative frequency of the postnominal possessive. Second, the discrepancies between native use and the language of the two learner groups are greater in spoken than in written language. Thus, as far as the spoken data is concerned, Finnish learners used 14.77% more of-possessives than English native speakers, and German learners even resorted to the postnominal construction 52.71% more often than native speakers of English did.

As these results already indicate, there were considerable differences between the two learner groups’ written and spoken use of possessive constructions. A direct comparison of their performance in each subcomponent is given in Figure 16, which shows how many occurrences of the postnominal possessive there were per one instance of a prenominal possessive. As can be seen from this chart, Finnish learners were a lot more consistent in their use of possessives: While they did use postnominal possessives more frequently in spoken

![Figure 15: Comparison of spoken and written frequency of postnominal possessive](image-url)

As these results already indicate, there were considerable differences between the two learner groups’ written and spoken use of possessive constructions. A direct comparison of their performance in each subcomponent is given in Figure 16, which shows how many occurrences of the postnominal possessive there were per one instance of a prenominal possessive. As can be seen from this chart, Finnish learners were a lot more consistent in their use of possessives: While they did use postnominal possessives more frequently in spoken
conversation than in writing, the difference between the two only amounts to 0.92, i.e. 25.21% less of-possessives in written than in spoken language. The German group, on the other hand, exhibited a much greater divergence between written and spoken use; thus, they produced 1.71 more postnominal possessives when speaking, i.e. 56.07% more than in writing. All in all, the difference between spoken and written use was more than twice as large in the language of German learners as it was in that of their Finnish counterparts.

![Figure 16: Comparison of number of postnominal possessives per prenominal possessive between written and spoken learner language](image)

5.2. Qualitative analysis I: Identification of salient factors

In the following, I will try to identify factors which seem to be salient in learner’s choice for a certain possessive construction. To avoid CLI effects distorting the results, the focus will be on those areas where language transfer is less likely to play a great role, i.e. on prenominal possessives as used by German learners, and postnominal possessives as used by native speakers of Finnish. The respective second type of possessive construction will be taken into account only in so far as it fulfils an important function as a point of reference, since a factor can only really be claimed to be salient (or irrelevant) in the choice for a certain construction if the patterns that are found are not equally applicable to the other construction.
5.2.1. German speakers’ use of prenominal possessives

On the basis of the 50 occurrences of German prenominal possessives that I analysed, it appears that the factor which correlates most reliably with this kind of possessive construction is the reference point function of the possessor. However, as was pointed out in section 4.3.7., it is only to be expected that prenominal possessors will be reference points, since this broad function follows logically from placing the possessor first. This does not mean that the prenominal possessive is chosen over its postnominal counterpart because the speaker wants to use the possessor to help the listener identify the possessee, however, since the possessor still fulfils the task of making the possessee identifiable when it has specifying function; the only difference is that the localisation of the possessee happens through information that is given afterwards. Thus, the reference-point function might well be an accurate description of prenominal possessives, but not necessarily an explanation for why a speaker would choose it. This conclusion is supported by the fact that the German data did include some instances of prenominal possessives where it was doubtful whether the possessor functioned as a reference point. In total, I could identify five such occurrences, which varied in terms of how far removed the possessor was from being a reference point.

(53) a. okay this is my own way of doing things and this is the Austrian or any other culture’s way of doing things (VOICE, EDsed31:825)

b. and you as the tutors have a slightly metaperspective […] that might not necessarily be completely identical with (a) student’s perspectives (VOICE, EDwdsd464:723)

c. Augsburg’s numerous street-cafés (ICLE-GE-AUG-0032.2)

d. (to) also finish up this history part of today’s workshop we are influenced by more factors as we think … (VOICE, EDsed251:601)

e. … it was an enormous bang we were sitting with the back to the window I thought it was bursting then I turned round and there was just some fat from the bird’s feathers on the […] window (VOICE, POcon591:31,33)

The most clear-cut example was the one in (53a). Since the possessee was already given and activated through its explicit mention within the same utterance, the possessor is clearly not needed to localise the possessee. (53b)
is a similar case, but not quite as obvious, because the possessee only closely resembles a concept that was activated before, rather than being the same. However, just as in (53a), the possessee is still more present in the speaker's mind than the possessor, and thus does not require a reference point to be identified. In (53c), there is a different reason for questioning the reference-point function of the possessor. Thus, it is Augsburg, i.e. the possessor, that is already strongly activated, as it is a vital part of the topic of the essay (“Augsburg city centre for pedestrians only”), and referred to continuously throughout the text. Interestingly, this is precisely the reason why it does not seem to function as a real reference point: It would have been just as clear that the speaker was talking about the street-cafés found in Augsburg if the possessor had not been expressed at all. (53d) resembles (53c), but its possessor can be said to exhibit a somewhat higher degree of reference-point function than that of the latter. Without mention of the possessor, it would still have been obvious that the speaker was talking about the workshop that the whole speech event formed a part of; however, in this case, the utterance in question resulted in a sudden change in the turn of the conversation, i.e. the workshop was only semi-activated via its connection to the situational context rather than already being active in the speech participants’ minds. The possessor in (53e), finally, comes closest to having actual reference-point function. Whose feathers were meant would again have been from the preceding context, as the speaker had just reported that a bird had flown against a window a few days ago. However, other than in (53c) and (53d), the expression would not have been as well-formed without mention of the possessor. This is likely to be the case because the speaker had just described the situation the witnesses of the incident had found themselves in. Thus, the concept bird had receded into the background; using it as the possessor lead to its reactivation, which made the subsequent reference of the possessee feathers somewhat less abrupt.

While reference-point function was found to lack explanatory power even though it correlated strongly with prenominal possessives, it appears that there are also a number of parameters which do not even show any real signs of correlation with prenominal possessives. Three such factors are givenness, the
relative activatedness of possessor and possessee phrase, and the activatedness of the possessive relation. Thus, while the majority of possessors (64%) were given, and the majority of possessees (58%) not given, linear precedence of the more given nominal only applied in 42% of cases. Even the apparent slight preference for given possessors and/or new possessees can easily be shown to have little informative value, however, as a similar distribution is found with postnominal possessives (i.e. 50% given possessors, 70% non-given possessees). With regard to activatedness, the results are similar, even though they look somewhat more promising at first sight: Since the possessor outranks the possessee in activatedness in 70% of cases, it seems as if the prediction that the more activated nominal will be placed first could indeed be significant. As was the case with givenness, however, a look at the results for the postnominal construction reveals that this is a false conclusion, as of-possessives are equally likely to contain a more activated possessor (i.e. in 66% of cases). The results for the activatedness of the possessive relation, finally, are inconclusive even for prenominal possessives alone.

Another case of a parameter that does not seem to explain German speakers’ choice for a prenominal possessive are the semantic roles encoded by the two nominals, at least with regard to Stefanowitsch’s semantic role construction model. Thus, 84% of the semantic relations required an override of the supposed prototypical meaning, and even within the remaining eight occurrences that could be categorised as possessor-possessee relations, only two conformed closely to the prototype of possession, namely my friend’s house (ICLE-GE-AUG-0017.3) and mother’s job (ICLE-GE-AUG-0078.3).

A second aspect that was tested with regard to semantic roles was whether there were certain types of relations that seemed to evoke strong preferences for a certain possessive construction. With regard to the prenominal possessive as used by German speakers, the three most common types of relations were agent-event (24%), whole-component (22%) and possessor-possessee (16%); however, whole-component relations were even more commonly encoded by postnominal possessives, and therefore obviously irrelevant in the choice for either. The other two, on the other hand, did correlate strongly with the
prenominal construction. Thus, out of a total of 14 agent-event relations, 12 (i.e. 85.71%) were encoded by a prenominal possessive; what is more, a closer look at the remaining two postnominal possessives shows that these are rather questionable examples. The expression in (54), for instance, consists of two coordinated possessees, of which only one (i.e. advices) can properly be characterised as an event; the other, i.e. values, points more strongly to a classification as attribute. Accordingly, the meaning of the whole construction could be argued to be equally well described as the relation between attribute and holder, and is in any case certainly a non-prototypical instance of an agent-event relation. Example (55) is problematic for another reason: As the surrounding co-text shows, the learner in question is quite clearly affected by CLI. Evidence for such L1 transfer effects are the expression in my eyes (a literal translation of German in meinen Augen ‘in my view’), use of the determiner the before society (which usually occurs on its own in native English) and, perhaps most obviously, use of the third person feminine possessive pronoun her (cf. German die Gesellschaft) to refer to society. There is thus a distinct possibility that the choice of the postnominal possessive construction was also motivated by L1 influence.

(54) the values or advices of the elder generation (ICLE-FR-ULG-0018.2)

(55) I do not know what society can do with such people, because in my eyes it is rather inhuman to keep them in such mental hospitals for their whole life. The behaviour of the society is very often the reason for criminal behaviour of her members, but not in each single case. (ICLE-GE-DRE-0013.1)

As far as possessor-possessee relations are concerned, there was only one instance of a postnominal possessive that was classified as such, as opposed to eight prenominal ones. This one example is given in (56a). The relation between the two nominals is a marginal instance of a possession at best, as it is clear from the context that [org5] does not own the soccer team; what the speaker means if that the team is composed of players who work in (or are associated with) [org5]. The non-prototypicality of (56a) alone cannot be enough to conclude that this example should not be counted, however, as similarly problematic examples can be found with prenominal possessives (cf. 56b,
where the relationship between the two nominals is also one of close association rather than true possession).

(56) a. the soccer team of [org5] (VOICE, PBmtg300:2912)  
    b. [firstname30]’s department (VOICE, PBmtg27:465)

Rather, both examples serve as a reminder that classifying possessive constructions according to semantic roles involves imposing clear-cut boundaries on an inherently gradient phenomenon (cf. section 4.4). Even the two apparent tendencies, i.e. a strong preference for prenominal possessives with agent-event and possessor-possessee relations, should therefore be taken with a pinch of salt.

With regard to complexity/end weight, the results also first appeared to be rather tentative. Thus, possessor and possessee were found to be exactly equal in weight, with both consisting of an average of 1.64 words. The possessor was heavier than the possessee in 40% of cases, whereas the reverse was true for only 22% of the data. Even when only considering more conspicuous cases, i.e. a difference in word count of at least two words or more, the principle of end weight did not seem to take any great effect: Out of a total of ten such instances, the possessor still outweighed the possessee in four cases. If the margins were set so as to include only differences in length of at least three words, however, the resulting picture was a lot clearer. Under these circumstances, five out of six cases were arranged so that the heavier nominal (i.e. the possessee) was placed last. There are thus indications that considerations regarding end weight only come into play when the differences in word count between the two nominals are very large (i.e. exceed three words). When this situation does apply, however, learners do seem to have a strong tendency to choose the possessive construction that would allow the heavier element to be placed at the end. Even the one counterexample found in my data does not cast any doubts on the finding that complexity seems to be a relevant factor in the distribution of English possessives, as it is clearly not a well-formed expression:

(57) the each opposite sex’s qualities (ICLE-GE-BAS-0017.1)
This example is interesting precisely because it seems to go against the preferences of other German learners (and certainly also those of native speakers). The inevitable question then is what might have motivated the speaker in question to opt for a prenominal possessive nonetheless. In other words, one is left to wonder which other factors she might have perceived as so salient that she chose to ignore the principle of end weight (and the presence of a final sibilant, cf. below). A number of parameters can be excluded straight away, as they are clearly not significant for this example. Thus, the relative topicality of the two nominals could not have been a determining factor, as possessor and possessee are both given as well as activated. The activatedness of the possessive relation as well as the semantic roles encoded by the relation (i.e. attribute-holder) are also unlikely to have influenced her choice, since the overall findings indicate that they are of little importance in the distribution of possessives found in the language of German learners. With the prior accounts of possessive constructions in mind, one conclusion that suggests itself is that the example in (57) could be an instance where animacy was the deciding factor – but is this really the case? To find out, it is vital to check if animacy constitutes an important parameter in German learners’ choices in general.

A quick look at the data does indeed seem to indicate that animacy could be a very relevant factor. Linear precedence of the more animate nominal can account for 84% of prenominal possessives; moreover, 44 of the possessors (i.e. 88%) were animate. Of the remaining six, two, i.e. Augsburg in Augsburg’s numerous street-cafés (ICLE-GE-AUG-0032.2) and the town in the town’s network of cycle tracks (ICLE-GE-AUG-0055.3), are potential cases of HO, and as such certainly more activated than the CI possessees they are combined with. The other four occurrences of inanimate possessors were all instances of what appears to be a separate construction type: Thus, all these examples, given in (58), fit the constructional schema [TIME’s EVENT], provided that the concept of events is understood in a fairly loose manner (cf. 58c). It could be argued that they are therefore exempt from a discussion of relevant factors, as there is no true choice between pre- and postnominal possessive.
However, even if all inanimate possessors were either recategorised or retroactively excluded so as to produce a 100% correlation between animate possessors and the prenominal possessive construction, it would still be a fallacy to conclude that the former motivates the choice for the latter. This becomes clear when looking at the corresponding set of 50 postnominal possessive. Since these also contain a relatively large number of animate possessors (i.e. 42%), it cannot be the case that speakers opt for a prenominal possessive because of the animacy of the possessor phrase. The same situation applies with regard to the so-called animacy hierarchy: Even though most prenominal possessives were found to conform to the proposed order, the hierarchy has to be rejected, as postnominal possessors also tend to be more animate than the respective possessees (i.e. in 58% of cases). What does appear to be a valid conclusion, however, is that German learners of English seem to avoid using prenominal possessives in combination with inanimate possessors. Thus, even if the six examples of such possessors that were listed above are taken into account, the vast majority of inanimate possessors (i.e. 29, or 82.86%) were encoded by means of a postnominal possessive construction.

Another potential influence in German speakers’ choice for the prenominal construction that is related to animacy regards personal names. There appears to be a very strong tendency for German learners to use the prenominal possessive whenever the possessor phrase is made up of the name of an individual. Thus, out of a total of 30 such possessors, 28 (i.e. 93.3%) occurred in a prenominal possessive construction. The remaining two are given in (59). In (59a), one might speculate that one possible reason for choosing this particular alignment of possessor and possessee could be complexity of the former. While the difference in word count is negligible, due to the large number of syllables in the possessor phrase, the corresponding expression *Immanuel Kant’s works* would feel considerably less fluent. The assumption that complexity could play a
role here is further substantiated by the fact that a shortened prenominal possessive such as *Kant’s works* would have fitted the context just as well as the postnominal construction that was chosen; the weight of the possessor phrase thus seems to be the only discernible reason that might have precluded the speaker from using a prenominal possessive. The example in (59b), on the other hand, is likely to be a case of L1 transfer. Both nominals are introduced into the discourse only through their use in the possessive construction, but they still differ greatly in terms of their accessibility: While the use of a first name suggests that the speaker assumes the other speech participants will be familiar with and thus able to uniquely identify the referent, *backup* is a new concept, and will only become localisable through its combination with the possessor. It would thus have been much more natural for the speaker to refer to the more cognitively accessible entity first. It seems, then, that reference-point function and (inherent semi-)activatedness would have been the most relevant factors in this particular example. As this example nicely shows, even factors that were ruled out on the basis of quantitative considerations might still play a role in the choice for a certain possessive construction.

(59) a. the works of Immanuel Kant (VOICE, EDsed251:440)
   b. the backup of [first name 6] (VOICE, PBmtg300:999)

Another possible explanation for the atypical order of possessor and possessee in (59b) is that the former might have ended in a sibilant. That the presence of final sibilants in the possessor phrase does seem to play a role in German learners’ use of possessives is indicated by the data: Thus, while plural possessors were evenly distributed among pre- and postnominal possessives (10 occurrences in combination with the former, 12 with the latter), the number of regular plurals was noticeably higher in postnominal possessives (10 out of 12, i.e. 83.33%) than in prenominal ones (4 out of 10, or 40%); most prenominal plural possessors consisted of nouns such as *people, women or children*. Since German learners do seem to have a tendency to place possessors ending in a final sibilant last, the question arises what might have lead to the choice of a prenominal possessive in the case of the following four counterexamples:

(60) a. these farmers’ kids (VOICE, EDsed301:362)
b. the banks’ investments (VOICE, PRpan294:39)
c. non-capital cities’ universities (VOICE, POwgd14:886)
d. the each opposite sex’s qualities (ICLE-GE-BAS-0017.1)

Interestingly, the acceptability of (60a) depends strongly on how it is interpreted. If it is read as a prenominal possessive, i.e. as (these farmers’ kids), it is noticeably less natural than when read as (these (farmers’ kids)), i.e. as a possessive compound. As a closer look at the co-text reveals, (60a) was indeed likely intended to be understood as the latter:

(61) in the cities we have still again I guess the problem of unemployment so what do you do with all these farmers’ kids (VOICE, EDsed301:362)

Since the speaker addresses a general problem, it is quite clear that she is talking about a certain type of people, rather than about the offspring of a few specific farmers. Moreover, she never mentioned any particular group of farmers that the determiner these might be taken to refer back to.\(^\text{14}\)

(60b) is a lot less straightforward to analyse. Topicality can be excluded as a determining factor, as both possessor and possessee are equal in terms of givenness and have the same activation state. The difference in animacy between the two nominals is equally unlikely to have influenced the speaker in his decision for a prenominal possessive, as it was shown to co-occur with postnominal possessives as well. The only possible explanation that is supported by the rest of the data is that the semantic relation encoded by the construction might have motivated the speaker to opt for a prenominal possessive: The expression in (60b) is most appropriately characterised by the semantic roles of agent and event (or possessor and possessee, alternatively). Since German learners seem to tend to encode such relations by means of a prenominal possessive, there is a chance that this preference might have determined the speaker’s choice of possessive construction.

\(^{14}\) Since it turned out that this example was a possessive compound rather than a real possessive construction, it should not have been included in the analysis. However, rather than excluding it in retrospect, I decided to single it out for individual discussion. As it was only one example in 50 (or 300, if the complete set of data is counted), leaving it in should not have had any negative effects on the overall results.
The possessives in (60c) and (60d), finally, remain unclear even when examined in more detail. In both of these examples, and with regard to all research parameters, possessor and possessee either fall into the same category or are arranged in reverse order to what would have been expected. In the case of (60d), this was already pointed out earlier, when it was discussed as the only occurrence that seems to have been exempt from the principle of end weight. Then, it was speculated that the animacy of the possessor might have been a decisive factor, but this possibility could also be eliminated by taking a closer look at the overall results. We have thus come full circle without finding any answers as to what parameters might have played a key role. A potential reason for this apparent lack of determining factors might be that there were none: The speaker in question may have chosen to use a prenominal possessive out of an awareness that this construction is more common than German prenominal possessives, rather than due to any specific parameters that it typically co-occurs with. Put simply, the expressions in (60c) and (60d) might be cases of hypercorrection.

This conclusion also serves as a reminder that any inferences about English possessives drawn on the basis of learner language data have to remain speculative, as it can never be ruled out completely that apparent patterns are in fact learners’ errors. The findings discovered here thus need to be corroborated and/or disproven through a comparison to native English data. For the moment, it looks as if German learners tend to choose prenominal possessives in combination with personal names and agent-event and possessor-possessee relations, and avoid them whenever the possessor is inanimate, contains a final sibilant or is considerably heavier than the possessee. Other parameters, such as the relative activatedness of the two nominals, did not seem to play any great role on the whole, but nevertheless appear to have been relevant for certain specific instances.

5.2.2. Finnish speakers’ use of postnominal possessives

While the former section focused on the prenominal possessive and only
referred to the postnominal one to check if an apparent trend could be confirmed, this section will do precisely the opposite. Interestingly, it seems as if the results remain largely similar, even when the emphasis is placed on the other type of possessive construction. Thus, just as was the case with the German data set, the Finnish one shows that givenness, the activation states of possessor and possessee and the activatedness of the possessive relation do not seem to play a decisive role. While most postnominal possessors were given (74%) and activated or semi-activated (88%), the same was true for prenominal possessors (68% given, 98% active or semi-active). Also with regard to the possessee, it was impossible to discover any significant differences, as possessees had a general tendency to be new to the discourse (32% in postnominal, 34% in prenominal possessives), and were often (semi-)activated (66% in postnominal, 58% in prenominal possessives). In the light of these results, it is also not surprising that linear precedence theories clearly do not apply: The possessee was more given than the possessor only in 10% of cases, and activatedness did not fare much better, with only 16% of possessees outranking the respective possessors. The findings concerning the activatedness of the possessive relation, finally, were also inconclusive, as there was no clear trend in either direction: 18% of relations were active, 24% semi-active, and 58% inactive. Moreover, these numbers were mirrored almost exactly in the results for Finnish prenominal possessives.

At first sight, animacy looked like yet another parameter that does not play any role in Finnish speakers’ choice for a postnominal possessive. The extended animacy hierarchy defined in section 4.3.1. could only account for 10% of the data in question, and the status of the two nominals also seemed to have little influence: While the majority of possessees was found to be inanimate (84%), this was also the case with prenominal possessive constructions (92%); with regard to the possessor, the results appeared inconclusive even when looking at the postnominal possessive alone, as numbers were split about evenly between animate (48%) and inanimate (52%) nouns. However, the latter figure did turn out to be significant, since it contrasted with only three cases of inanimate prenominal possessors. Expressed in percentages, this means that 89.66% of inanimate possessors occurred postnominally. Furthermore, of the
three prenominal exceptions, two consisted of the noun *today*, and thus corresponded to the [*TIME’s EVENT*] construction identified as a potential entrenched subtype when describing the German prenominal possessive. The third exceptional expression was in fact very similar, but less well-formed:

(62) into the direction of *future’s demands* (ICLE-FIN-JOEN-0001.2)

In principle, (62) should also fit the constructional schema mentioned above. Since it does not constitute a fully acceptable structure in English, however, the schema apparently needs refinement. The doubtful event status of *demands* on its own does not explain why the expression is questionable (cf. 58c). A possible solution could be limiting the possessor slot to more concrete time specifications, but more important than the question of how to define the schema is why a prenominal possessive was chosen in the first place. Potential explanations are overextension of the above-mentioned constructional schema, or indeed language transfer: (62) could be a literal translation of *tulevaisuuden vaatimukset*, which is a fairly common expression in Finnish. Either way, there does appear to be a very strong tendency for Finnish learners to choose a postnominal possessive construction if the possessor is inanimate.

Another parameter that seems to have great descriptive accuracy is that of the function of the possessor: 90% of postnominal possessors could be classified as having specifying function. However, as was pointed out above, it is questionable how much explanatory power such numbers really have, as the possessor’s specifying meaning seems to follow automatically from positioning it after the possessee. Viewed from this perspective, what is more surprising is that 10% of possessors could not be attributed specifying function. The overarching reason for doubting that the possessor fulfilled its typical function was that the possessee would have been understood as standing in relation to it even without its explicit mention. Within this broad situation type, two subtypes could be distinguished: In the examples in (63), the possessor was not required because it had already been named in the preceding co-text; in (63a) and (63b), it had even been brought in connection with the possessee before. In (64), on the other hand, explicit mention of the possessor was rendered unnecessary by its strong activatedness in the context of the speech event. Thus, in (64a), it
was obvious which urban areas the speaker was referring to since the whole essay was concerned with Arab countries, and in (64b), the preceding co-text had dealt exclusively with the US, which is why adding *of the country* was not necessary to make clear which language policy was meant.

(63) a. the recharging of the batteries (ICLE-FSW-ABO-0005.5)  
    b. the lower house of the German parliament (VOICE, POprc558:38)  
    c. the assessment of thesis (VOICE, POwgd26:1275)  

(64) a. the urban areas of the Arab world (ICLE-FIN-HJT-0005.1)  
    b. the language policy of the country (ICLE-FIN-JOEN-0003.1)  

As was the case with the German examples for possessors with dubitable reference-point function, there was a gradience from redundant possessors (e.g. 64a) to such that might be argued to have some degree of specifying function (e.g. 63b).

Stefanowitsch’s semantic role construction model was found to have as little applicability to postnominal possessives as used by native speakers of Finnish as it did for German learners’ prenominal possessive constructions. Overrides of the assumed standard meaning were required in 80% of cases, and of the remaining 20%, only a single semantic relation could be classified as prototypical, i.e. *the outskirts of Siberia* (VOICE, P0con543:1087). The three most common pairs of semantic roles were attribute-holder, component-whole and patient-event; these were also the only three types of relations that were noticeably more often encoded by a postnominal possessive than by a prenominal one. The clearest majority for the postnominal construction was found with patient-event relations (75%), followed by attribute-holder (68.18%) and component-whole (66.66%) relations. As far as the latter two combinations of semantic roles are concerned, a look at their prenominal variants showed that there were many clear-cut instances of these types of relations among them, such as (65a,b) for attribute-holder, and (65c,d) for component-whole. Therefore, it could hardly be argued that there is a strong preference to express these semantic roles in a postnominal possessive.

(65) a. women’s low self-esteem (ICLE-FIN-HJT-0008.1)
b. a young man’s character (ICLE-FIN-HELS-0012.1)  
c. the singer’s face (VOICE, LEcon545:1277)  
d. children’s hands (ICLE-FIN-JYV-0012.1)

The situation is somewhat different with regard to patient-event relations: Of the three examples of prenominal possessives classified as such, two (66a,b) are actually borderline cases, and could equally well be assigned to the category of attribute-holder. (66c) is thus the only unambiguous instance of a prenominal possessive conveying a patient-event relation, which could be an indication that Finnish speakers do indeed tend to encode this type of semantic relation postnominally.

(66) a. student’s, university’s and society’s needs (ICLE-FIN-JYV-0050.1)  
b. society’s practical needs (ELFA, CPRE03A)  
c. women’s subordination (ICLE-FIN-HJT-0002.1)

Much more reliable claims can be made about the role of complexity in Finnish learners’ use of the postnominal possessive. There seems to be a general tendency to resort to this construction when the possessor is relatively heavy. Thus, the average postnominal possessor measured 2.54 words (or 2.35, if the one statistical outlier, i.e. a nominal of twelve words, was not counted), while the average possessee only amounted to 1.34 words. The situation was reversed for the average prenominal possessive, which consisted of a possessor of 1.56, and a possessee of 2.84 words length. In the light of these finding, it is not surprising that the principle of end weight seems to exert quite a strong influence on Finnish learners: There was not a single postnominal possessive construction where the possessee outweighed the possessor by more than one word, whereas the reverse situation applied in a total of 14 cases. If the limits were set even higher at a difference in word count of at least three words, four cases of considerably heavier possessors remained. While this number is small, it is still significant, as it contrasts with only one such prenominal possessive (66a). What is more, it is highly doubtful whether this one counterexample should even be counted, since it consists of three short coordinated possessors rather than one long and complex one. It thus seems as if the complexity of the
The posessor phrase did have a decisive influence on Finnish learners' choice of the postnominal possessive construction.

Another factor that appears to be a relatively reliable indicator for a postnominal possessive is the presence of a final sibilant in the possessor phrase. Thus, out of 21 possessors that ended in a sibilant, 17 (i.e. 80.95%) occurred in a postnominal possessive construction. That this distribution had nothing to do with the number of the possessor becomes clear when comparing the number of singular and plural possessors in post- and prenominal possessives: Both constructions were used with precisely the same amount of singular and plural possessors, i.e. 35 and 15, respectively. The difference between the two once again lay in the fact that most postnominal plural possessors contained a final sibilant, while the majority of prenominal ones did not. The only three prenominal plural possessors are given in (67).

(67) a. alcoholics' wives (VOICE, PRpan13:149)
   b. others' internal affairs (ELFA, USEMP03C)
   c. the professors' salaries (ELFA, CPRE03A)

The question arises what might have persuaded the speakers in question to resort to a prenominal possessive construction despite the apparent general tendency to place possessors with final sibilants in postnominal position. In the case of (67a), it seems relatively likely that the learner was affected by transfer, as there is not a single parameter that would point to a prenominal possessive. (67b) could also be an instance of language transfer, but it is also conceivable that the weight of the possessee phrase might have played a role, especially if the number of syllables is taken into account. Finally, there is a small possibility that the prenominal possessive was chosen because the possessor is animate; however, this has to be considered the least likely explanation, since Finnish speakers do not seem to hesitate to use animate possessors postnominally, even if there are no other obvious reasons which would speak for that position. In (67c), the only two other options besides L1 influence concern the givenness and animacy of the possessor phrase, but again, neither seems particularly plausible in the light of the overall results. The reasons for choosing the
prenominal possessive have to remain similarly speculative with regard to the only case of a singular possessor ending in a sibilant, given in (68).

(68) Ace’s motor scooter (ICLE-FIN-HJT-0023.1)

The two nominals *Ace* and *motor scooter* rank the same with regard to givenness and activatedness, and their relation is non-activated. The possessor is of course clearly more animate than the possessee, whereas the latter outweighs the former in complexity; both of these parameters could potentially speak for a prenominal possessive. Finally, there is also a chance that the speaker was influenced by the fact that the possessor consists of a personal name: Just as their German counterparts, Finnish learners of English tended to use the prenominal possessive in combination with such possessors, namely in 80% of cases. However, in comparison to the German subsample, this finding is much less reliable, as it builds on a total of only 10 instances of possessors containing personal names.

To sum up, according to the data presented here, Finnish learners of English seem to opt for a postnominal possessive primarily when the possessor is inanimate, considerably more complex than the possessee, and/or contains a final sibilant. In addition, it looks as if the postnominal possessive is preferred whenever the two nominals encode a patient-event relation. Finnish learners’ decision for a postnominal possessive construction thus seems to be influenced by similar factors as German speakers’ choice of the prenominal possessive. The parallels between the two learner groups could indicate that the parameters that were identified might indeed correspond to those that are most salient in the distribution of the two possessive constructions. However, this can hardly be asserted on the basis of learner language data alone. Rather, it will be necessary to check if the tendencies identified here are equally true for possessive constructions produced by native speakers of English.

5.3. Qualitative analysis II: Comparison to native use

While section 5.2. tried to identify parameters which are such clear indicators for
one of the two possessive constructions that they are recognised and adopted by learners of English, the aim of this section is to ensure that the findings described above are indeed relevant. This is attempted by contrasting them with the patterns found in the language of native speakers of English, or rather, in the 100 native English examples of possessive constructions included in this study. This way, it should become clear which parameters really are a genuine part of English grammar, and which have come about through language transfer or are the result of overextension. Moreover, it will be tested whether there are any parameters that appear to be relevant for English, but seem to be overlooked by most German and Finnish learners. There will therefore also be subsections on all those parameters that were found to be largely irrelevant in the analysis of learner language.

It might be important to point out here that I am very aware that native English is of course not as uniform as my current treatment of it might suggest. It is not only possible, but even highly probable that different speakers would disagree on whether certain uses of the possessive are appropriate or not. However, for the present analysis, there would be little point in trying to differentiate between different varieties or indeed idiosyncrasies. Instead, I will presume to treat it as a unified system, knowing full well that what I take as my standard of reference is in fact likely to be as varied as the different levels of competence of learners of English. Other than with learners, who might differ in how well they have mastered English grammar, however, it can be assumed that every native speaker is a competent user of the language with a fully developed conceptual network of linguistic units.

Finally, it should be noted that all the native English examples included in this analysis are British English. The decision to limit the native English data to just one standard was made primarily to ensure that the sample would be as consistent as possible, so that maximally reliable comparisons could be drawn between possessive constructions produced by native speakers and learners of English. Since British English is still the standard taught most widely throughout Europe, it seemed logical to choose it as the reference standard for this study.
5.3.1. Animacy

With both Finnish and German learners, the only general trend that could be identified in connection with animacy was that inanimate possessors occurred almost exclusively in postnominal position. The only noticeable exception to that apparent rule were constructions of the type [TIME’s EVENT], especially with today in the possessor slot. Moreover, German speakers, and to a lesser degree also the Finnish group, seemed to tend towards using the prenominal possessive with personal names.

How, then, do these findings reflect on the possessive constructions used by native speakers of English? Overall, it does look as if the two learner groups managed to emulate the patterns of native use. Thus, the large majority of inanimate possessors (i.e. 90.63%) were indeed found in postnominal possessive constructions. It can thus hardly be doubted that there is a strong preference to use a postnominal possessive if the possessor is inanimate, and that this tendency seems to have been identified correctly by both German and Finnish learners. At the same time, however, it appears as if this general tendency is not as absolute as one might think, and as it might seem on the basis of the learner data. Thus, the three instances of prenominal inanimate possessors (cf. 69) cannot be explained by means of any highly entrenched construction types, but indicate that there are other factors which might take precedence over the inanimacy of the possessor.

(69) a. the OED supp.’s earliest citation (ICE-GB:W2B-010 #261:1)
   b. the Saint-Lazare terminus’s passenger statistics for 1869 (ICE-GB:W2B-002 #068:2)
   c. the current day’s problems (ICE-GB:S1B-037 #016:1:C)

With regard to (69a), it is very hard to tell which parameter might have been of overriding importance. As both nominals largely fall into the same categories, the only conceivable explanation is that it is the possessor’s suitability as reference point that might have influenced the speaker in their choice. Since the supplement of the OED is a more concrete and tangible concept than a citation, and in fact relatively likely to semi-activate the possessee just through its mention, it might be that the speaker used the prenominal possessive to make it
easier for the addressee to conceptualise the possessee. The most plausible explanation for the possessives in (69b) and (69c) is that the possessor is more activated than the possessee, which could again be related to its reference-point function, as tracing a mental path from an already activated and hence accessible notion to an inactive one will require less cognitive effort than the reverse route. In view of the results found for Finnish and German learners, it is surprising that such considerations even seem to outweigh the presence of a final sibilant, as in (69b). This could indicate that learners tend to overestimate the importance of the latter factor, but whether this really could be the case will be checked in section 5.3.4 below.

Before moving on to topicality, what still needs to be investigated is whether learners are correct in preferring the prenominal possessive whenever the possessor is a personal name. Based on the 100 examples of native English constructions that I analysed, this seems to be a very valid observation. Out of a total of 32 possessors that referred to a person by their name, there was only a single one that occurred postnominally, namely (70); this means that a striking 96.88% of personal names were used in a prenominal possessive. If anything, it thus looks as if learners, especially the Finnish group, did not adhere to the principle of placing such nouns first closely enough.

(70) the descendants of Zadok (ICE-GB:S1B-001 #073:1:B)

Especially in the light of the overwhelming majority of prenominal personal names, it is interesting to consider what might be the reason for the postnominal possessive in (70). In this particular case, it appears as if the choice for the postnominal position was simply a matter of conventionality and entrenchment: As the expression was part of a lesson on religious history, it is likely that the speaker was influenced by the style of biblical texts; these, in turn, generally encode kinship relations by means of postnominal possessives (cf. such expressions as the children of Abraham, the son of God, Jacob, son of Isaac).

5.3.2. Topicality

On the basis of the learner data, it looks as if neither definition of topicality is a
good indicator for which possessive construction will be preferred. The broader notion of activatedness seemed to fare slightly better than givenness, as the predicted patterns were found to apply to the majority of prenominal possessives; however, activatedness could not account for the behaviour of the postnominal construction either. Theories about the linear precedence of the more topical nominal thus had to be rejected for both parameters.

5.3.2.1. Givenness

Givenness appears to have equally little explanatory power for native speakers’ choice of possessive construction as for that of learners. The data indicate a weak tendency for possessors to be given (i.e. in 61% of cases), and for possessees to be new to the discourse (i.e. in 65% of cases), but this was true for both prenominal and postnominal possessive constructions. The more given nominal was placed first in only 48% of prenominal, and 18% of postnominal possessives. Learners thus seem to be correct in not attributing any great value to the givenness status of the two nominals.

5.3.2.2. Activatedness

Also with regard to activatedness, the data suggest that this parameter does not play a decisive role in the distribution of English possessive constructions. If the analysis is limited to the prenominal possessive, it appears as if activatedness is a very reliable factor, since prenominal possessors outrank their respective possessees in 84% of cases. However, the patterns found for the postnominal possessive once again invalidate this result. When the two possessives are compared to each other, it becomes obvious that possessors tend to be more activated irrespective of their position in the construction. Prenominal possessors were activated or semi-activated in 98% of cases, but the corresponding figures for postnominal ones were also rather high at 82%. In view of these results, it is not surprising that precedence of the more activated nominal applied for 84% of prenominal, but only 22% of postnominal
possessives. Overall, this means that 53% of possessive constructions were arranged so that the nominal with the higher-ranking activation status was placed first, which is hardly enough to postulate that speakers would select possessive constructions on the basis of such considerations. Once again, it thus appears as if this parameter was largely ignored by the two learner groups not because they failed to identify an important pattern, but because it simply is not particularly salient in the distribution of English possessives. However, it is important to bear in mind that this does not mean that activatedness cannot contribute to a speakers’ choice for a certain construction, or even become an overriding factor in some individual cases (cf. section 5.3.1. above).

5.3.3. Complexity/end weight

The patterns discovered in the language of Finnish and German learners give the impression that complexity is a highly salient factor in the distribution of English possessive constructions. Learners had a very strong tendency to place the heavier nominal towards the end, so that most complex possessees occurred in a prenominal, and most complex possessors in a postnominal possessive. This preference became apparent already when looking at possessives with a difference in word count equal to two, but was almost exclusive if the limit was set even higher, at a difference of at least three words.

A look at the native English data suggests that complexity is as significant a factor as the two learner groups seem to assume. Thus, the average postnominal possessor was considerably heavier than the average prenominal one, with the former measuring 3.52 words, the latter only 1.72. Even if the one exceptionally long postnominal possessor of 25 words length were excluded, the average possessor would still outweigh the average possessee by 1.36 words. With regard to the possessee, the situation was reversed, with prenominal possessees (i.e. those occurring in a postnominal possessive) counting only 1.48 words on average, and postnominal ones 2.74 words. As these numbers already indicate, the principle of end weight apparently does figure prominently in the choice of possessive construction. This becomes even
more evident when looking at and comparing the number of constructions that adhere to and/or go against the principle. Even if differences in word count of only one word were accepted, only 24% of the total sample did not follow the principle, whereas 51% did. If the minimal difference in words was increased to two, the picture was immediately much clearer. Of a total of 43 possessives that met this criterion, 37 (i.e. 86.05%) contained the heavier element in postnominal position. The results were even more significant if the margins were set to a difference of at least three words: Under these circumstances, a striking 96.29% of possessives were arranged according to the principle of end weight, with only a single counterexample remaining.

Since there does seem to be a very strong tendency to choose the possessive construction that allows the heavier nominal to be placed at the end, looking at the examples that did not follow this principle might prove useful in identifying potential overriding factors. For this purpose, I shall briefly analyse the six instances of possessives that contain a prenominal element which outweighs its postnominal counterpart. (71) shows the three prenominal possessive constructions that meet this criterion. (71a) was already discussed above as part of the subsection on animacy, and it was found that the only conceivable explanation for the choice against a postnominal possessive was the activatedness of the possessor, in combination with its potential reference point function. While this is odd in the light of the results presented in section 5.3.2.2., (71b) and (71c) support this analysis, as the most salient difference between the two nominals again lies in their activation states.

(71) a. the current day’s problem (ICE-GB:S1B-037 #016:1:C)
    b. twentieth-century women’s novels (ICE-GB:W2B-009 #022:1)
    c. the production manager’s head (ICE-GB:W2B-004 #103:1)

(72) a. the only real value of politics (ICE-GB:S1B-024 #013:1:C)
    b. the embattled Spanish Republican Government of that era (ICE-GB:W2B-005 #139:1)
    c. the one and a half million men and women of the British Empire who died in two world wars (ICE-GB:S1B-037 #016:1:C)
Interestingly, however, the first of the postnominal counterexamples, i.e. (72a), is arranged in exactly the opposite order, i.e. with the clearly more activated nominal following the less activated one. When looking at this example in isolation, one could speculate that the postnominal possessive was chosen because the possessor ends in a sibilant, but this straightforward explanation is challenged by the fact that activatedness was assumed to outweigh the presence of a final sibilant in example (69b) above. (72b) and (72c) do not help to clarify the picture either. Quite the contrary, they do not even allow drawing plausible conclusions when all other examples are disregarded. Both examples seem to be very similar in terms of their overall arrangement, as the of-phrase serves to specify where the possessee is located. The only difference is that this location is temporal in (72b), whereas it is geographical in (72c). However, such expressions can hardly be said to be incompatible with the prenominal possessive construction (cf. the proposed subtype described as \[TIME’S EVENT\]).

One parameter that the two examples have in common is that the more animate entity is placed first. While that on its own would be a rather weak explanation for the preference for the postnominal possessive, there could be an interaction with the specifying function of postnominal possessors. With regard to (72b), one could argue that it is easier to conceptualise the possessee first due to it being much more concrete than the possessor. The latter would then only serve to concretise the conceptualisation of the former. However, this scenario becomes much more unlikely in the case of (72c), as its possessee can hardly be said to evoke a very clear mental image when regarded on its own.

As the analysis of these examples shows, it is very difficult to determine which factors are the most dominant and might thus even override others with greater overall applicability. Still, the principle of end weight seems to be a good general guideline in the choice between the two possessives, and one that learners of English also successfully recognise and apply in their own L2 production.

5.3.4. Number of possessor and presence of a final sibilant

The possessive constructions produced by both Finnish and German learners
did not correlate in any way with the number of the possessor, but did seem to be influenced strongly by the presence of a final sibilant in the possessor phrase. Thus, both learner groups exhibited a clear tendency toward using the postnominal possessive if the possessor ended in a sibilant.

One thing that can easily be asserted on the basis of the native English data is that the learners were right in not letting the number of the possessor interfere with their choice of possessive construction. Plural and singular possessors were spread out very evenly over postnominal and prenominal possessives, and therefore do not seem to correlate with either construction. As far as possessor phrases with a final sibilant are concerned, however, there does seem to be a general preference for the postnominal possessive. Thus, out of 20 constructions that ended in such a sound, 15 (i.e. 75%) occurred postnominally. The remaining five examples are given in (73).

(73) a. the Saint-Lazare terminus’s passenger statistics for 1869 (ICE-GB:W2B-002 #068:2)
   b. the audience’s sense of the happening of this play (ICE-GB:S1B-019 #006:1:A)
   c. Tilson Thomas’s direction of An American in Paris (ICE-GB:W2B-008 #067.1)
   d. Thames’s money (ICE-GB:S1B-042 #205:2:B)
   e. your parents’ home (ICE-GB:S1B-049 #086:1:A)

Again, the question arises which parameters might have taken precedence over the apparent trend to place possessor phrases with a final sibilant in postnominal position. The most noticeable competing factors are the activatedness of the possessor phrase (73a,c), complexity (73b,c), the use of a personal name (73c,d) or possibly the activatedness of the possessive relation (73d,e). Moreover, any or all of the expressions in (73) could have been aligned in this particular way so as to allow the possessor to function as a reference-point. Since trying to determine which parameters were of overriding importance would result in mere guesswork, especially with regard to those examples that could in principle be determined by several factors, the question posed above will have to remain unanswered for the time being. Even so, in view of the numbers presented above, there are good reasons to suppose that
the presence of a final sibilant is a relatively reliable indicator for a postnominal possessive. It also seems to be a sufficiently salient factor for learners to identify and use it accordingly.

5.3.5. Activatedness of the possessive relation

The analysis of learner data yielded inconclusive results for the activatedness of the possessive relation. With regard to both the Finnish and the German subset, it was found that activated, semi-activated and non-activated relations were distributed evenly between the two possessive constructions.

This situation was also found to apply to the 100 examples of native English possessive constructions analysed as part of this study. Thus, there were exactly 7 activated relations per type of construction, and the differences in the number of semi-activated and inactive relations were also negligible, as 9 semi-active and 34 inactive relations in combination with a prenominal possessive contrasted with 10 semi-active and 33 inactive ones used with the postnominal construction. Therefore, it can be concluded with some certainty that the activatedness of the possessive relation is not a reliable indicator for either of the two English possessives, which explains why it is also disregarded by Finnish and German learners.

5.3.6. Semantic roles

The semantic role construction model proposed by Stefanowitsch (2003) was found to have little to no informative value for the possessives produced by the two learner groups. The only tendencies that could be identified via classifying possessor and possessee according to semantic roles regarded certain kinds of semantic relations that were particularly common with one of the two types of possessives; however, these were not necessarily the same ones as those assumed to provide the default interpretation. Thus, while the German data indicated that possessor-possessee relations were one kind of relation that correlated strongly with the prenominal possessive, the semantic roles of agent
and event were found to be equally typical. Most Finnish postnominal possessives, on the other hand, fell into the categories of component-whole, attribute-holder or patient-event.

The analysis of the native English component of the data resulted in a similar picture. Since 83% of possessives required an override of the proposed constructional meaning, and only as little as 7% could be considered prototypical, Stefanowitsch’s model clearly did not describe the situation in native English any more accurately than it did that found with the learner groups. In terms of semantic relations that frequently co-occurred with just one of the two constructions, the patterns that seem to characterise native English largely resembled those discovered with German and Finnish learners. Thus, the most common types of relations found with the postnominal possessive were those of attribute-holder, component-whole and patient-event. These three combinations of semantic roles were all encoded by a postnominal construction in more than 80% of cases, with only two or three counterexamples each. However, among these prenominal occurrences, there were also such prototypical component-whole and patient-event relations as (74a) and (74b), respectively. This shows that any tendencies to express such relations by means of the postnominal possessive are far from absolute, as the prenominal possessives that do occur cannot be the result of fuzzy boundaries or doubtful categorisation. The lack of clear counterexamples for attribute-holder relations could be taken to mean that these are exclusively used with postnominal possessives, but then again, it is easy to come up with prenominal ones that are prototypical, even if the data on hand do not contain any such expressions.

(74) a. the girl’s eyes (ICE-GB:W2B-009 #117:1)
    b. President Kennedy’s assassination (ICE-GB:W2B-010 #132:1)

With regard to the prenominal possessive, the English samples seem to confirm that agent-event and possessor-possessee relations are indeed most frequently encoded by this type of possessive. 16 of 20 agent-event relations (i.e. 80%) were found in combination with the prenominal possessive construction, as well as all examples of possessive relations (in the narrow, semantics-based understanding of the word), which, however, were very rare at a total of only 5
occurrences. However, the most common combination of semantic roles was that of creator and creation, with 16 out of 17 such relations (i.e. 94.12%) expressed by means of a prenominal possessive. Just as was the case with the three typically postnominal relations mentioned above, it is evident that none of the three most frequent prenominal ones are encoded exclusively as such. The one postnominal occurrence of a creator-creation relation, i.e. (75a), is without doubt prototypical, and there were also postnominal possessives that encoded clear-cut agent-event relations, such as (75b).

(75) a. nature [...] is in fact the creation of man (ICE-GB:S1B-037 #036:1:A)
   b. the abuses of multinational companies (ICE-GB:W2B-013 #063:1)

The English data thus show clear tendencies, but no absolute rules when analysed in terms of semantic relations. It does appear, however, that these tendencies are salient enough that German and Finnish learners notice and imitate them in their own use of English possessive constructions.

5.3.7. Reference-point versus specifying function of the possessor

The German and Finnish data indicate that the function of the possessor provides an adequate characterisation of the two possessives, but cannot necessarily explain why a certain construction was chosen, as there were a number of examples where it was highly doubtful whether the possessor really did fulfil its supposed standard function.

The same situation was found to apply with regard to the possessive constructions produced by native speakers of English. Thus, there were three prenominal possessors that clearly did not function as reference-points, but behaved more like specifiers, as the possessee was already given in the preceding co-text (76a,b,c), and only had to be linked to a different possessor. Moreover, in a fourth expression, i.e. (76d), mention of the possessor was in fact superfluous, as the world can hardly be said to help locate the concept of the two largest democracies in a text that deals with real-world events and does not assume the existence of politically organised extraterrestrial life.
(76) a. I’m very happy to measure that experience against […] Mr Ashdown’s experience … (ICE-GB:S1B-043 #036:1:B)

b. but I will never forget my response and the company’s response … (ICE-GB:S1B-023 #116:1:C)

c. the survey that we carried out is slightly broader than the CBI’s [survey] (ICE-GB:S1B-021 #115:2:C)

d. the world’s two largest democracies (ICE-GB:W2B-011 #048:1)

Two similar cases, i.e. such where the function of the possessor was questionable because of its almost non-existent information value, were also found among the 50 examples postnominal possessives (77a,b). In addition, there were a total of five instances of postnominal possessors that lacked specifying function because the concepts they denoted were so highly activated through their recent mention in the discourse that the respective possessees would have been brought into connection with them even if they had not been named as part of the possessive construction (e.g. 77c).

(77) a. all the stench and noise of that place (ICE-GB:W2B-006 #034:1)

b. the big trusts of this period (ICE-GB:S1B-005 #172:1:A)

c. Would the Government ever envisage occupying Baghdad […] I can’t envisage certain situations in which […] the occupation of Baghdad … (ICE-GB:S1B-027 #101:1:A, #102:1:B)

Viewed in terms of total numbers, it thus appears as if there is a relatively large amount of possessive constructions that do not fit the proposed constructional meaning. At the same time, however, the qualitative analyses done as part of this section suggest that the reference-point function of the possessor might have been a deciding factor in certain specific examples. While this was not found to be the case with the specifying function of postnominal possessors, it could well be that this lack of evidence was a result of the examples that were singled out for analysis, rather than the general unimportance of the parameter.

What, then, does the native English data reveal about learners’ use of this parameter? The distribution found with Finnish and German learners resembled that of native speakers, but it is still very hard to determine if the function of the possessor was recognised by the learner groups, or indeed if it is a factor worth recognising. On the basis of the data analysed here alone, it is impossible to
determine whether the function of the possessor is an automatic consequence of the choice for a certain possessive, or if learners (as well as native speakers) actively decide for one or the other construction because they want to attribute a certain function to the possessor.
6. Discussion: And what about the mind?

The results that were presented throughout the last chapter were largely confined to concrete numbers and practical examples. The question arises how these findings reflect upon the complex cognitive phenomena that this paper set out to investigate. Is it feasible to abstract from the outcomes of the analysis and make inferences about the mental processes underlying language and conceptualisation, or will drawing conclusions about the workings of the human mind prove an impossible task?

In this sixth and final chapter I will discuss the results of my analysis in view of the research questions that I defined in sections 4.1.1. and 4.1.2., respectively. In doing this, I will attempt to link the concrete research parameters used in the practical part of my study to the more abstract conceptual categories that an investigation within the framework of CG calls for. This way, I hope to be able to provide insights into the two broad areas of investigation that lie at the heart of this paper, i.e. what effect the cognitive routines associated with a speaker’s L1 have on L2 production, and what factors seem to be decisive in the choice for a certain English possessive construction.

6.1. The role of L1 cognitive habits in L2 performance

The research project conducted as part of this thesis was guided by the assumption that non-native speakers of English would be affected by the patterns found in their respective first languages when choosing between the two English possessive constructions. Thus, it was hypothesised that German learners would tend towards overusing the postnominal possessive, whereas learners with a Finnish L1 background would prefer the prenominal possessive.

These hypotheses are called into question by the quantitative evidence presented in section 5.1., which suggests that learners of English are not as strongly influenced by their L1 as was expected. Overall, the differences in the distribution of possessive constructions between native speakers and Finnish and German learners were found to be surprisingly small: All three groups
produced about three times as many postnominal possessives as they did prenominal ones. However, the discrepancies that could be noted did point in the direction of possible language transfer.

Thus, with regard to German learners, it was found that the postnominal possessive was indeed chosen more frequently than it was by native speakers of English, albeit with the limitation that the only significant differences occurred with regard to spoken language; the possessives that made up the written component of the German data were divided among the two constructions almost precisely the same way as in native English. The distribution found with spoken German possessives, on the other hand, deviated noticeably from that of L1 English. The prenominal possessive was used so infrequently by German learners that the proportion of postnominal possessives was 50% higher than that measured with native speakers. This is likely to be the result of CLI, as the German genitive (i.e. the closest equivalent to the English prenominal possessive) is used much less commonly in speech than in writing. At the same time, it can be assumed that the presumably much higher level of competence of the speakers represented in the written component of the data will also have had some effect on the outcome.

Contrasting the results of the German subgroup with that of the Finnish one confirms that the differences in language skills alone cannot account for the apparent divide between German speakers’ written and spoken performance. If they were the sole reason behind this unequal distribution, then there should be an equally great discrepancy between spoken and written language with Finnish learners. However, the differences between the two media of communication were considerably smaller in the Finnish data, namely only about half as great as with native speakers of German. Moreover, the ratio of prenominal to postnominal possessives found with Finnish learners deviated from that in native English to a similar degree with regard to both written and spoken language. Since the performance of the Finnish group apparently did not depend on the media of communication, it is all the more likely that the reasons for the discrepancies found with German learners are to be sought in their L1 background.
As far as Finnish learners are concerned, it is in fact very difficult to tell whether the hypothesis about their preferred possessive construction is true or not. In the written component of the data, they did choose the prenominal possessive slightly more often than native speakers of English, but the differences were not substantial enough to be able to proclaim with certainty that CLI was at work, even if they were much clearer than they had been with regard to the German subgroup. What is more, the analysis of the spoken sample even suggested that Finnish learners produced a higher proportion of postnominal possessives than native speakers. Again, the results were not sufficiently clear to draw reliable conclusions, but they still call for an explanation for why the situation in spoken Finnish turned out to be contrary to what had been expected. One possible reason for this unforeseen distribution might be the nature of the data from the ELFA corpus, which constitutes about one third of the whole Finnish spoken component. As was pointed out in section 4.4, the majority of speech events from this subpart of the data were presentations that had likely been prepared in advance, and might therefore share more characteristics with written than with spoken language. The assumption that the unusual nature of a considerable part of the spoken sample might have distorted the results is strengthened by the fact that the figures obtained from ELFA did differ strongly from those found with VOICE. However, it also has to be kept in mind that the spoken Finnish component was very small overall, and that any findings made on the basis of these data will thus have to remain speculative. While there are indications that L1 transfer did not play as large a role as was hypothesised, further investigation is required to confirm or invalidate these results.

One thing that can be said with some certainty is that the assumptions about which learner group would perform better at emulating the distribution found in native English did not hold true for the samples analysed in this study. It was speculated that Finnish learners would have greater difficulties with possessive constructions than learners with a German L1 background, as it has been suggested that both language distance and the absence of category distinctions relevant for the L2 are factors that impede second language acquisition. However, the quantitative data do not support any such conclusions. As far as written language is concerned, the German figures did resemble those obtained
for native speakers of English more closely, but the Finnish results were also so similar to the English ones that one could hardly speak of significant differences between the two learner groups. The only considerable differences occurred with regard to spoken language, but these pointed in the opposite direction, i.e. that Finnish speakers managed to match the native English ratio of prenominal to postnominal possessives more closely than the German group. It thus appears as if the devil is in the details, rather than in the broad distinctions: While Finnish learners might have to acquire a new category when learning to use English possessives, German learners will have to realise that the categories that exist in English do not conform precisely to those known to them from their mother tongue. Therefore, both groups will have to overcome certain cognitive habits associated with their L1. The data presented here show weak indications that speakers of related languages with similar conceptual categories might ultimately face the more challenging task. At the very least, it seems unlikely that the reverse is true, i.e. that the hypotheses about missing category distinctions and language distance being inhibiting factors in SLA apply after all. However, it should not be forgotten that many extralinguistic factors had to remain uncontrolled, and might thus have contributed to the results as well. For example, it could be that Finnish learners performed better than expected because their general exposure to English was higher than that of the average German speaker. This is a likely side effect of the comparatively strong presence of English in Finnish everyday life, brought about e.g. via the lack of dubbing on Finnish TV. Once again, further research into this particular area of investigation will be needed to ascertain that the findings obtained here are not the result of limitations inherent in the design of the project.

The qualitative part of my study supports the main conclusion of the quantitative analysis, i.e. that CLI seems to be much less influential than was assumed. Thus, while there were a number of individual expressions that appeared to have been affected by language transfer (see e.g. the examples given in 55, 59, 62 and 67a), neither of the two learner groups showed any consistent signs of CLI in their application of the research parameters. Quite the contrary, the choices made by both Finnish and German learners seem to be governed by similar factors as those of native speakers of English (cf. section 6.2. below).
That this is not a mere consequence of overlaps in function between English possessives and the respective constructions in Finnish and German can easily be shown when comparing the three languages with regard to certain specific parameters. To give just one example, it is surprising that Finnish learners do not seem to struggle with the apparent strong tendency to use the postnominal possessive whenever the possessor is inanimate, even though the Finnish genitive is used regardless of the animacy status of the nominals. In this particular case, it is likely that the explanation for the good performance of Finnish learners is to be sought in an extralinguistic factor, namely in the explicit instruction Finnish learners receive on the subject. In English language classes in Finland, the animacy of the possessor phrase is usually presented as the main difference between the two possessive constructions.

Does the fact that both learner groups used English possessives successfully mean that the conceptual categories and construal processes connected to a speaker’s L1 do not interfere with their L2 performance? Is language transfer an overrated factor in second language learning? Even though the evidence for CLI is rather weak in the study described here, it would definitely go too far to proclaim that it is therefore of minor influence overall. Rather, what can be asserted is that language transfer does not feature prominently in the distribution of English possessive constructions found in the language of the German and Finnish learners that were represented in the data chosen for this research project. Despite the very limited scope of this only certain conclusion, it is possible to make some more general inferences about how L1 habits might interact with the process of L2 acquisition. Thus, the spoken German data do indicate that the constructional schemas familiar to a speaker from their L1 lead them to tend towards using similar constructions in L2 production. At the same time, however, the overall results show very clearly that learners are perfectly capable of adopting new conceptual categories and/or adapting their existing ones so that they match those of L2 grammar. The Finnish and German learners featured in this study, especially those that contributed to the written component of the data, have apparently done a sufficient degree of such re-thinking for speaking (cf. section 2.2.2.) to be able to use English possessives in a manner largely similar to that of native speakers.
6.2. What learners’ choices reveal about the English possessive

Exploring the effects of language transfer on German and Finnish learners’ choice of possessive construction in English was only one goal of this paper; the other was to investigate what the possessives produced by non-native speakers of English may reveal about the factors at work in the distribution of the two constructions. The rationale behind placing the focus on learner language rather than native English was that an analysis of learners’ use of possessives might show which parameters are so prominent in the choice for a certain construction that they are recognised and implemented by learners as well. Rather than trying to build up my own theory about which criteria are decisive, I decided to make use of the rich body of literature on possessives, which also had the advantage of making it possible to test if any of the factors proposed in the various prior accounts of the phenomenon could accurately represent the patterns found in my data.

The perhaps most striking result of the analysis of factors was that there were no discernible differences between the possessive constructions produced by the two learner groups and those used by native speakers of English. On the basis of the research parameters I applied, I could not detect any factors that were present in the native English sample, but were apparently overlooked by the two learner groups. Neither did I discover any indications for additional parameters that might have transferred directly from German or Finnish.

The factors that appear to be most prominent in the data that I analysed were the presence of a final sibilant in the possessor phrase, the complexity of the two nominals (in connection with the principle of end weight) and the animacy status of the possessor. In addition, there were a number of semantic relations that seemed to correlate strongly with one specific type of possessive construction. With regard to the prenominal possessive, these relations were those of agent-event, possessor-possessee and creator-creation; with the postnominal possessive, the predominant combinations of semantic roles were component-whole, attribute-holder, and patient-event. Finally, it was found that possessors that consist of personal names have a very high tendency to occur prenominally.
These results beg the question what might be going on in a speaker’s mind when they opt for a certain possessive construction, i.e. what more abstract cognitive processes may lie behind the concrete factors that turned out to be relevant in the qualitative analysis. One aspect that appears to feature prominently in the choice of possessives is ease of production and processing. To ensure successful communication, speakers will tend to use the construction that is easiest for them to produce and requires the least effort to identify the referent on the part of the listener. In choosing which nominal to place first, speakers lay out a certain mental path that the listener can follow; apparently, this decision is not only influenced by whether a nominal may constitute a suitable reference point, but also involves making sure that neither speaker nor listener will meet any obstacles along the way. This, at least, is a likely explanation for why both the presence of a final sibilant in the possessor phrase and the complexity of the two nominals seem to be important factors in the distribution of English possessives. If the possessor ends in a sibilant, especially if it consists of a regular plural nominal, the postnominal possessive is preferred so as to avoid ambiguities concerning the number of the referent. Complex nominals, on the other hand, are placed in final position so as to ensure that speaker and listener do not have to take too great a detour to arrive at the destination, and/or will not get lead astray.

Minimising the risk of communication problems is of course not the only criterion that is at work, as there will be many cases where neither of the two possible alignments of possessor and possessee could lead to any difficulties in processing. The question is thus what (in)animacy, certain types of semantic relations and possessors consisting of personal names might reveal about what motivates speakers to choose a certain possessive construction. As far as the clear preference for the postnominal possessive with inanimate possessors is concerned, it is tempting to assume that POSS prototypically imposes a certain degree of agency on the possessor phrase. This would also explain well why personal name possessors occur almost exclusively in prenominal position, and why possessor-possessee, creator-creation and agent-event relations tend to be used with the prenominal possessive, while component-whole, attribute-holder and patient-event relations are more common in postnominal possessive
constructions. However, even if it is accepted that a possessor such as the one in *President Kennedy’s assassination* (ICE-GB:W2B-010 #132:1) is acceptable because it has the potential for agency (even if it is not exploited in this particular context), and that [TIME’s EVENT] expressions are exempt because they form their own highly entrenched construction, such speculations cannot account for examples such as *the creation of man* (ICE-GB:S1B-037 #036:1:A) (cf. 75a). Another possible explanation for both the apparent importance of animacy and the prenominal use of personal names, as well as the usual distribution of semantic roles, regards the reference point function of the possessor. At this point, it might be important to draw attention to the fact that these three factors are of course strongly interrelated. Thus, agents, creators and possessors are typically human, and personal names are generally reserved for human beings (and certain select types of animals) as well. Humans, in turn, are by default cognitively more accessible and thus easier to conceptualise than inanimate concepts, and might thus serve as useful reference-points in the identifications of such things as events, creations and material possessions, for example. Once again, however, the data provide sufficient counterarguments against such explanations that they can only hold if they are not assumed to have general validity. After all, there were a number of possessor phrases that clearly did not function as reference points even though they occurred in a prenominal possessive, as well as nominals that did not have any characteristics that would qualify them as reference points, but were still imbued with some degree of reference-point function simply by being placed in prenominal position.

The only conclusion that can safely be drawn from the overall findings thus has to be that the analysis performed as part of this research project cannot explain why speakers would choose one, rather than the other possessive construction. What it can do, however, is show that the parameters that have been put forward during prior discussions of the phenomenon cannot provide a satisfactory answer to this question, either. With the possible exception of the account proposed by Keizer (2007a,b), which does not purport to provide an ultimate solution, but leaves open which factors really do play a key role and
how they might interact, none of the descriptions of possessive constructions discussed in this paper actually apply to the data analysed here.

This is in itself an important finding, as it shows that we do not yet have a sufficiently clear understanding of the reasons behind the distribution of English possessive constructions. It appears as if there are certain factors at work that have not been discovered yet, or that the relevant parameters form such a complex network that we do not yet comprehend all the possible ways in which they can interact, even if the principal criteria have successfully been identified. Clearly, further research will be needed to get to the heart of the differences between the conceptualisations of ’s and of.
7. Conclusion

This paper set out with the ambitious goal to shed light on both how great a role L1 cognitive habits play in L2 performance, and what parameters seem to determine the choice between the English prenominal and postnominal possessive construction. These objectives proved too difficult to achieve within the scope of this project: Many of the research questions defined as part of the two overarching areas of investigation had to remain unanswered, or could only be resolved partially, i.e. by pointing out certain indications or tendencies that will require further investigation to establish whether they really are significant.

The reasons for the limited validity of the results are to be sought primarily in constraints integral to the available data, as well as in certain temporal and quantitative restrictions. To name just one such example, the sections on possessive constructions in Finnish and German had to be confined to an overview of existing descriptions, when ideally, it would have been preferable to work with actual language data. A full-scale analysis of German and Finnish possessives would have allowed for a more accurate account of the situation in these two languages, which in turn would have provided a more solid basis for speculations about differences in construal between English, German and Finnish possessives. Still, such undertakings would not have been feasible, as they would easily offer enough material to constitute their own separate research projects.

All of these remarks about inherent problems should not be taken to mean that the study conducted here was without results, however. Despite the different limitations underlying this paper, it has been possible to gain a number of important insights into both language transfer and the distribution of English possessive constructions. Thus, there were indications that language transfer does play a role in non-native speakers' use of English possessives, but that its influence is very minor at advanced levels of L2 competence. It was also found that language distance and the lack of category distinctions relevant for the target language do not seem to automatically entail greater difficulties in L2 acquisition. As far as English possessives are concerned, the main finding was
that none of the factors that have been said to determine the choice between the two constructions could fully account for the data that I analysed.

While the great discrepancies between the theories about the phenomenon and the patterns found in actual language use suggest that we will need to devote further attention to the subject matter to deepen our understanding of the conceptual differences between prenominal and postnominal possessives, we might also need to accept that certain cognitive aspects of language will always be beyond our reach. As Langacker (1999: 19) puts it: “However great its functional motivation, the structure of a language cannot be predicted in full and precise detail on the basis of the motivating factors.” Instead of striving for finding the ultimate answer to which factor (or, rather, which network of interacting and interdependent factors) leads speakers to choose a certain possessive construction, we might need to content ourselves with identifying consistent patterns and explaining exceptional cases on the basis of the concrete context in which they occur.

In view of these considerations, this study might have produced more meaningful findings if the focus had been placed on a smaller and more controlled sample, which could then have been analysed in even more detail. Moreover, rather than selecting the data for the qualitative analysis randomly, it might have made more sense to single out and discuss those examples that promise to yield the most interesting results. In other words, the curious mix that is this diploma thesis might have turned out to be a better culinary experience if the ingredients had been chosen differently. Rather than attempting to cook up a lavish multi-course meal, I should have opted for a simpler, but well-proven dish. Still, I do not regret undertaking this endeavour, as the creation process itself has provided me with many valuable new insights. Hopefully, the overall experience will have been an equally rewarding one for everyone who got to sample the final product, even if they discovered weaknesses in the recipe.
8. References


Hakulinen, Auli; Maria Vilkuna; Riitta Korhonen; Vesa Koivisto; Tarja Riitta Heinonen; Irja Alho. 2004. Iso suomen kielioppi. Helsinki: Suomalaisen kirjallisuuden seura.


Appendix

English abstract

This thesis deals with the way native speakers of Finnish and German use English possessive constructions. By investigating the choices made by these two learner groups, it is attempted to shed light on two separate issues. The first objective is to determine how much speakers are influenced by the linguistic structures known to them from their mother tongues. Secondly, this study aims at finding an answer to the long-disputed question of which parameters play a decisive role in the distribution of English possessives. This phenomenon is approached from the perspective of learner language to identify which factors are so salient that even non-native speakers of English recognise and adopt them.

The theoretical framework guiding both research interests is Cognitive Grammar (CG), as developed and refined by Langacker (1987, 1991, 1999, 2007). Following the main principles of CG as well as cognitive linguistic approaches to language transfer, it is assumed that (a) a speaker’s performance in a second language will be affected by the conceptual categories and construal processes associated with their first language, and (b) that linguistic alternations (such as the English prenominal and postnominal possessive) are in fact two semantically distinct constructions, i.e. two different ways of conceptualising the same situation.

The phenomena in question are investigated by means of a corpus-based study of possessive constructions, which is subdivided into a quantitative and a qualitative part. The former examines differences in the distribution of English possessives between German and Finnish learners and native speakers of English by contrasting the relative frequencies of the two constructions. Comparisons are also made between written and spoken use. The second, qualitative part is based on a smaller subset of the complete data containing a total of 300 possessive constructions. These are analysed with regard to different parameters that have been claimed to be key factors in the choice between the two constructions in earlier descriptions of the phenomenon. To
determine whether a certain parameter applies, both the immediate linguistic 
co-text of the utterance and the larger situational context of the speech event 
are taken into consideration.

The results of this study reveal that language transfer does not seem to be as 
influential in the choice of English possessives as was hypothesised, but do 
show indications that transfer processes were at work in certain cases, in 
particular in the spoken use of possessives of the German learner group. As far 
as the distribution of English possessive constructions is concerned, it was 
confirmed that none of the existing accounts could adequately describe the 
patterns found in actual language use. While the findings did suggest that the 
complexity and animacy of the possessor phrase as well as the presence of a 
final sibilant and the combination of certain semantic roles are good predictors 
for which possessive construction will be preferred, none of the tendencies that 
could be identified were absolute. Even if interactions between different factors 
were taken into account, it remained impossible to explain why a speaker opted 
for a certain construction. It was thus concluded that further research will be 
needed to obtain a better understanding of both the role of cross-linguistic 
influence and the reasons behind the alternation of English pre- and 
postnominal possessives.
German abstract


Die Ergebnisse der vorliegenden Studie offenbaren, dass zwischensprachliche Interferenz in der Wahl zwischen den beiden englischen Possessivkonstruktionen insgesamt nicht so bedeutend zu sein scheinen wie ursprünglich angenommen, weisen jedoch auch Anzeichen auf, dass in gewissen Fällen sehr wohl Transferprozesse stattgefunden haben. Besonders deutlich ersichtlich waren solche Einflüsse der Muttersprache im gesprochenen Gebrauch der Possessiva durch die deutschsprachige Lernergruppe. Was die Verteilung der englischen Possessivkonstruktionen betrifft, konnte bestätigt werden, dass keine der bestehenden Darstellungen des Phänomens die im tatsächlichen Sprachgebrauch vorherrschenden Muster akkurat beschreiben konnte. Während die Resultate nahe legen, dass die Komplexität und Belebtheit des Possessors sowie das Vorhandensein eines auslautenden Sibilanten und die Kombination bestimmter semantischer Rollen relativ zuverlässige Anzeichen dafür sind, welche Possessivkonstruktion bevorzugt wird, stellte sich auch heraus, dass keine der erkennbaren Tendenzen absolut ist. Selbst wenn Interaktionen zwischen verschiedenen Faktoren berücksichtigt wurden, blieb es unmöglich zu erklären, warum Sprecher auf eine bestimmte Konstruktion zurückgriffen. Es musste daher der Schluss gezogen werden, dass weitere Forschungsarbeit notwendig sein wird, um ein besseres Verständnis für die Rolle interlingualer Interferenzen sowie die Gründe hinter der Alternation englischer Possessivkonstruktionen zu gewinnen.
Curriculum vitae

Persönliche Daten

Name: Iris Vukovics, Bakk.phil. BA
Geburtsdatum: 27.6.1988
Geburtsort: Wien
Staatsbürgerschaft: Österreich
E-Mail: iris.vukovics@gmail.com

Ausbildung

2006– Diplomstudium der Anglistik und Amerikanistik, Universität Wien
2007–2012 Bachelorstudium (urspr. Diplomstudium) der Skandinavistik, Universität Wien
Abschluss mit Auszeichnung
2006–2011 Bakkalaureatsstudium der Fennistik, Universität Wien
Abschluss mit Auszeichnung
2009–2010 ERASMUS-Auslandsjahr an der Universität Helsinki im Rahmen des Fennistikstudiums
1998–2006 Gymnasium GRG1 Stubenbastei, 1010 Wien
Matura mit ausgezeichnetem Erfolg abgeschlossen
1994–1998 Offene Volksschule Wolfgang-Schmälzl-Gasse, 1020 Wien

Berufserfahrung

2012– Organisationsassistentin, Institut für Anglistik und Amerikanistik, Universität Wien
2012– Studienassistentin für Prof. Keizer, Institut für Anglistik und Amerikanistik, Universität Wien
2010– diverse Übersetzungen (Deutsch–Englisch) und Aufnahmen als Sprecherin für Siemens Austria im Auftrag von LIFE TV
2010– Tutorin für PPOCS, Institut für Anglistik und Amerikanistik, Universität Wien
2010–2011 Tutorin für Finnisch Grundkurs, Institut für Finno-Ugristik, Universität Wien
So long,
and thanks for all the tea!

Pots of tea consumed during work on thesis: